CHAPTER 2 Alternatives, Including the Preferred Alternative



INTRODUCTION

This chapter presents four alternatives; all are consistent with BLM policy. These alternatives represent combinations of actions to guide land use and resource management on public lands and minerals in the planning area. The basic goal of each alternative is to resolve resource planning issues. Management Common to All Alternatives will continue regardless of which alternative is selected.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

The following management actions were considered for resolving planning questions or issues, but were not analyzed in detail because of technical, legal or other constraints.

Cultural

Designate the Miles/Sitting Bull Cedar Creek Fight as an area of critical environmental concern. During consideration of this area of critical environmental concern nomination, it was determined that there were no BLM-administered lands involved. A *Federal Register* notice was published on November 26, 1993, asking the public for comments. During that period, it was determined that the site location was in question. Since the site location is undetermined there is not enough information to evaluate the site's importance and relevance for area of critical environmental concern consideration. If the site is considered relevant and important in the future (the site is found on public land), further planning would be conducted.

Access

BLM-administered lands should be posted every 1/2 mile as "BLM-administered Public Lands." This alternative suggests that all public lands in the planning area be posted. To post public lands within the planning area every 1/2 mile would not be practical or economically feasible due to the fragmented public land pattern (see maps 31A,B,C,D). Signing of larger blocks of public land and areas of intensive public use is an ongoing project and accomplished as time and funding allows.

BLM land along the river should be marked with signs that warn sportsmen to be aware of trespassing on the adjoining private land. Signing areas of intensive public use is an ongoing project and accomplished as time and funding allows.

It should be the responsibility of the lessee to maintain BLM signs under penalty of loss of lease. This alternative is not consistent with existing laws, regulations, policies, or guidelines.

There should be, at a minimum, a posted walk-in access to all BLM-administered tracts of land. Legal access to every scattered tract or parcel of public land is not practical or economical.

Permittees should be required to provide legal access to isolated tracts of public lands under penalty of loss of their grazing lease. This alternative is not consistent with existing laws, regulations, policies or guidelines.

Right-of-way Corridors

Establishment of right-of-way corridors was considered, but not carried forward due to the fragmented federal ownership pattern in the planning area. Establishment of corridors would not be effective because most of the land is controlled by other landowners and may interfere with private property (see figure 1 in chapter 1).

Big Open

During the scoping process, several individuals suggested eliminating livestock grazing from most, if not all, lands of all ownerships in the Big Dry Resource Area. The "big open" concept, if implemented, would transform and restore the planning area and surrounding lands to a more naturally-functioning landscape, where wildlife production and tourism might be emphasized.

This alternative was considered carefully and extensively but not analyzed in detail. Implementation of such an alternative by BLM or other federal agencies would not be reasonable, given present landownership patterns and apparent landowner preferences within the area.

The BLM administers only 10 percent of all lands within the planning area, most of which consist of small, isolated parcels intermingled with private lands. The combined administration of all federal agencies within the planning area comprises only 12 percent of total ownership. While the BLM is clearly in a position to effect changes in the lands it administers, it can only indirectly influence management of intermingled and adjoining lands.

There is little local, county, or state government-level support for transforming the Big Dry Resource Area and surrounding lands to a "big open" landscape and economy. In fact, these entities generally support existing social and

economic systems, lifestyles, and land and resource uses. It is unreasonable to expect BLM or any other federal agency to implement a "big open" type of alternative without the cooperation of the remaining 88 percent of landowners within the planning area, and the affected state and county government agencies.

Grazing Permits and Leases

Competitive bidding on grazing permits and leases should occur every five years. This alternative is not consistent with existing laws, regulations, policies, and guidelines.

Guide and Outfitter Permits

The issuing of guide and outfitter permits on public land should be eliminated. Commercial outfitting and guiding is recognized as a legitimate use of public lands and is authorized by regulation. Commercial outfitters provide services to people who otherwise could not enjoy recreation opportunities on public lands. Managing the conflicts that develop are addressed in this plan.

Wild and Scenic Rivers

Suitability for wild and scenic river designation was evaluated on 96 rivers and streams. The rivers and streams evaluated are listed in the Wild and Scenic River appendix. A complete list of free-flowing rivers was generated using the Bonneville Power Pacific Northwest Rivers Study data base. No additional rivers were identified through either public scoping or by the BLM planning team. No rivers or streams were recommended for further study for wild and scenic river designation. For each river and stream on the list, the extent of public shoreline ownership was evaluated. In all cases, there were no blocks of public shoreline ownership large enough to manage those values identified by the Bonneville Power Pacific Northwest Rivers Study (see pocket maps 31A,B,C,D).

Two comments received on the draft resource management plan and environmental impact statement requested the segment of the Yellowstone River that flows through the Fort Keogh Agricultural Experiment Station be considered for designation as a wild and scenic river. BLM considered the segment and determined the area to be under the administration of the U.S. Department of Agriculture, not the BLM.

Wilderness

Inventory and evaluate the Coal Creek area for wilderness characteristics as per Section 202 of the Federal

Land Policy and Management Act of 1976. In 1989, BLM acquired lands through exchange in the Coal Creek and Terry Badlands areas. The parcels in the Terry Badlands Wilderness Study Area were recommended for wilderness when the recommendations for wilderness study areas were forwarded (USDI, BLM 1991d). The acquired land in the Coal Creek area created a block of public land about 11,000 acres in size (see pocket maps 31A,B,C,D). The inventory and evaluation of this area determined that although the area met the criterion for size, it lacked outstanding opportunities for solitude or a primitive and unconfined recreation experience. Therefore, this parcel was not analyzed further in this planning process.

The wilderness study process mandated by Section 603 of the Federal Land Policy and Management Act has been completed. The results of the study, including impacts to lands under wilderness review, are contained in the Final Missouri Breaks Wilderness Suitability Study and Environmental Impact Statement (USDI, BLM 1987a) and the Montana Statewide Wilderness Study Report (USDI, BLM 1991d). Mineral leases will not be issued in wilderness study areas. Effective January 1, 1984, the Department of the Interior suspended all mineral leasing in BLM wilderness study areas. This was based on language contained in the Fiscal Year 1994 Interior Appropriations Act, P.L. 98-146.

In accordance with Section 603(c) of the Federal Land Policy and Management Act, during the period of review of lands under wilderness review and until congress has determined otherwise, the Secretary of the Interior shall continue to manage such lands in a manner that will not impair the suitability for preservation as wilderness. Therefore, the issue of wilderness and impacts to wilderness study areas are not carried forward in this planning effort.

Lands in the planning area not designated as wilderness by Congress will return to multiple-use management and will be managed according to the land use planning decisions in this resource management plan and environmental impact statement. Areas designated as wilderness by Congress will be managed according to the Wilderness Act of 1964 and "Management of Designated Wilderness Areas" (43 CFR 8560).

Wild Horses

The Wild and Free-Roaming Horse and Burro Act of 1971 authorizes BLM to manage wild horses and burros on public lands. The Act provides that wild and free-roaming horses and burros are protected from unauthorized capture, branding, harassment, or death. No wild horses or burros are known to inhabit the planning area. Therefore, management objectives and management areas for wild horses and burros are not analyzed in this plan.

Wildlife

A potential area of critical environmental concern for the black-footed ferret comprising 124,090 acres was considered but not analyzed in detail. This proposed area of critical environmental concern was reduced to the current 11,166 acres, all of which are public land. This reduction was done for several reasons. The first and most important reason is the excluded area is dominated by private land. BLM-administered lands outside of the revised area of critical environmental concern containing prairie dogs are small in size, scattered, and difficult to manage, although the BLM does have some significant acres south and east of the Yellowstone River. The prairie dogs on BLM-administered lands in this area are also limited and scattered. In addition, the combination of the Yellowstone River, state highway, county road, interstate, and active railroad would make migration of the blackfooted ferrets difficult, if not impossible.

The BLM will continue to be proactive in the management of prairie dog towns as well as those wildlife species associated with prairie dog towns on BLM-administered lands outside of the proposed area of critical environmental concern.

ALTERNATIVES ANALYZED IN DETAIL

During the development of the Management Situation Analysis (USDI, BLM 1990a), the current situation was analyzed, public demand was assessed, and the capability of the BLM to resolve the issues was evaluated. This analysis was the basis for formulating the alternatives. Each alternative represents a different approach for resolving the issues. Alternative A, the no action alternative, would continue present management. This includes protection of special management areas, soils, vegetation, watershed values, and maintaining existing resource accessibility and availability.

Alternative B would increase protection of soils, vegetation and watershed. It would designate and provide restrictions in special management areas, and decrease resource accessibility and availability.

Alternative C would emphasize development and use of the resources while mitigating impacts to soils, vegetation and watershed. It would designate special management areas but with fewer restrictions and would provide more opportunities for resource accessibility and availability than Alternative B.

Management actions within Alternatives A, B, and C were analyzed to identify significant impacts. Alternative D, the preferred alternative was developed by selecting among the various management actions within Alternatives A, B, C, or by considering new actions that would resolve the planning issues. The rationale for selecting Alternative D, the preferred alternative, was based on public comments from scoping meetings, public comments on the draft resource management plan and environmental impact statement, current regulations, guidance, laws, current management policy, and the analysis of each alternative. The selection parameters used in selecting the preferred alternative were:

Decisions would adhere to the goals and objectives established in the Planning Criteria.

Decisions would be implementable and enforceable as BLM and the public would use this plan for the next 20 years.

Decisions would be consistent with BLM's multipleuse mission.

Decisions would reflect and endeavor to be consistent with efforts to improve eastern Montana's economy.

Decisions would emphasize Recreation 2000, Wildlife 2000, Range of Our Vision, and riparian/wetlands management.

Resource allocations were based on productivity and capability of lands and resources.

Management actions for each resource in the planning area are in this chapter under "Management Common to All Alternatives" and "Management Actions Specific to Each Alternative."

MANAGEMENT ACTIONS

AIR QUALITY

Management Common To All Alternatives

The objectives for air resource management are to maintain or improve air quality in the short and long term. Standard operating procedures will limit unnecessary emissions from existing and new point or nonpoint sources and will prevent significant deterioration of air quality in Class I areas. The Class II air quality areas allow deterioration associated with moderate development and population growth. National

and state air quality standards will be met in the planning area (see table 2). No actions are anticipated in any designated nonattainment area.

Under the requirements of the Clean Air Act, as amended, of 1979, federal agencies must abide by and support provisions of state implementation plans and state regulations.

TABLE 2
NATIONAL AND STATE AIR QUALITY STANDARDS

Pollutant	Federal Primary Standard	Federal Secondary Standard	Montana Standard
Deeply inhalable particulates (PM-10) ⁺	$50 \ \mu g/m^3$ annual average $150 \ \mu g/m^3$ 24-hr average*	50 μg/m³ annual average 150 μg/m³ 24-hr average*	50 μg/m³ annual average 150 μg/m³ 24-hr average*
Sulfur Dioxide	0.03 ppm annual average 0.14 ppm 24-hr average*	0.5 ppm 3-hr average*	0.02 ppm annual average 0.10 ppm 24-hr average*
Carbon Monoxide	99 ppm 8-hr average* 35 ppm 1-hr average*	9 ppm 8-hr average* 35 ppm 1-hr average*	0.50 ppm 1-hr average** 35 ppm 1-hr average*
Nitrogen Dioxide	0.05 ppm annual average	0.05 ppm annual average	0.05 ppm annual average 0.30 ppm hourly average
Photochemical Oxidants (ozone)	0.12 ppm 1-hr average*	0.12 ppm 1-hr average	0.10 ppm hourly average*
Lead	$1.5~\mu g/m^3$ calendar quarter average	1.5 μg/m³ calendar quarter average	1.5 μg/m³ 90-day average
Foliar Fluoride	None	None	35 μg/m³ grazing season average
Hydrogen Sulfide	None	None	0.05 ppm hourly average*
Settled Particulate (dustfall)	None	None	10 mg/m ² 30-day average
Visibility	None	None	Particle scattering coefficient of 3x10 ⁻⁵ /m annual average (PSD Class I areas)

KEY: PM-10 = particulate matter with an aerodynamic diameter less than 10 microns.

 $\mu g/m^3 = \text{micrograms pollutant per cubic meter of sampled air.}$

ppm = parts per million of sampled air. $mg/m^2 = milligrams per square meter$

PSD = prevention of significant deterioration

NOTES: +Statistical standards based on three years of data.

*Not to be exceeded more than once per year.

**Not be exceeded more than 18 times a year.

The BLM will conform with these regulations during prescribed burning as specified in the "9211-Fire Planning" section of the BLM Manual or when conducting other activities that may impact air quality. Project specific air quality impact analyses will be conducted as necessary to demonstrate compliance.

Administrative actions on public lands will conform with the air quality classification for that specific area and will not impact downwind Class I areas.

Management Actions Specific To Each Alternative

There are no additional management actions for Alternatives A, B, C, and D.

CULTURAL RESOURCES

Management Common To All Alternatives

The primary objectives are to manage the cultural resources under BLM jurisdiction through a system of identification, evaluation, interpretation, utilization, and reduction of conflict between cultural and other resources. The BLM has defined three categories to manage significant cultural properties. These categories are information potential, public values, and conservation for future use.

Cultural resources which contain significant information on prehistory or history of the planning area will be managed for their information potential. These are cultural properties that consist of artifacts and features that have the potential to yield important information.

Cultural resources that possess sociocultural, educational, and recreational attributes will be managed for their public values. These include cultural resources associated with Native American traditional lifeways values, and prehistoric or historic cultural properties which exhibit interpretive and/or recreational potential. Managing cultural properties used by Native Americans will focus on avoiding uses incompatible with traditional values.

Special or unique cultural resources will be managed under the conservation objective. Included here are cultural properties that contain sensitive prehistoric religious features such as medicine wheels or burials; cultural properties that are of a nature that would not permit current archeological technology to adequately investigate the property; and cultural properties which are rare in the planning area. Principal authorities for cultural resources are the National Historic Preservation Act of 1966; the Archeological Resources Protection Act of 1979, as amended; the Code of Federal Regulations (36 CFR 800); the American Indian Religious Freedom Act of 1978; and the Native American Grave Protection and Repatriation Act of 1990.

The National Historic Preservation Act identifies and establishes a system for addressing possible impacts to cultural resources resulting from federal actions. Section 106 directs federal agencies to consider the effects of their actions and authorizations on properties included in or eligible for the National Register of Historic Places.

The Archaeological Resources Protection Act establishes definitions, permit requirements, criminal and civil penalties for unauthorized or attempted unauthorized excavation, removal, damage, alteration or defacement of any archeological resource found on public or Native American lands. In addition, the Act specifies that federal agencies will coordinate with Native Americans before issuing archeological permits that may result in harm to, or destruction of, their religious or cultural sites. The American Indian Religious Freedom Act protects the rights of Native Americans to practice their religions. The Native American Graves Protection and Repatriation Act requires federal agencies to consult with Native American groups for disposition of cultural items or Native American human remains found on public lands or in federal possession. The BLM coordinates with Native American tribes when its actions have the potential to affect their values or religious areas.

Except for those actions identified in the BLM's Memorandum of Understanding with the Montana State Historic Preservation Office, the BLM conducts cultural resource inventories for lands that include surface disturbance as a part of the action. There are three classes of inventory (BLM Manual 8100).

Class I inventories are **reviews of existing cultural data** from resource inventory files maintained by the BLM, the Montana State Historic Preservation Office, professional literature, and other sources.

In **Class II** inventories, a **sampling or percentage of the area** is investigated for cultural resources. The results are projected for the entire land area. Class II inventories can be used to develop predictive models.

Class III inventories consist of an on-the-ground investigation of a specific area for cultural resources. This inventory results in the maximum identification of cultural resources. Class III inventories are usually required before surface-disturbing actions authorized by BLM. Class III inventories are required before disposal actions.

Cultural Resources

The BLM evaluates the cultural resources identified during inventories in consultation with the State Historic Preservation Office to determine if the resources are eligible for inclusion on the National Register of Historic Places. BLM's evaluation guidelines (BLM Manual 8143, appendix 7) supplement the National Register of Historic Places criteria for evaluation (36 CFR 60.4) and provide consistency across the state.

Mitigation of impacts to cultural resources could include exchanging land so significant cultural resources are acquired. Other mitigation measures include site avoidance and data recovery (including excavation). Avoidance of the site area is the preferred mitigation measure. Consultation with the State Historic Preservation Office and the Advisory Council on Historic Preservation is required when activities are expected to affect significant cultural resources.

Monitoring will be conducted as described in table 58 in the Monitoring appendix.

In emergency situations, 36 CFR Part 800.12 contains provisions for waiving Section 106 of the National Historic Preservation Act from compliance regulations. The State Historic Preservation Office must be notified within seven days after emergency procedures have been invoked.

After issuance of the Record of Decision for the Big Dry Resource Management Plan and Environmental Impact Statement, a cultural resource management plan will be prepared for the planning area. The cultural resource management plan will establish management objectives and prescriptions for cultural resources in the area. This plan, in addition to allocating cultural resources to specific uses, will guide and focus active management of the planning area's cultural resources. During the life of the resource management plan cultural resources will be managed according to recommendations made in the Big Dry Resource Area Cultural Resource Management Plan. Management objectives for significant cultural resource values will remain unchanged under all alternatives addressed in this resource management plan.

The Big Dry Cultural Resource Management Plan will focus special management interest and attention on certain classes of cultural sites or individual properties as they may lend themselves to identified uses and will establish priority management for specific cultural resources. Management of individual properties will be addressed in site specific cultural resource project plans. Management emphasis will be placed on the following categories of sites:

Special emphasis will continue to be focused on bison kill sites. These sites will be managed to facilitate scientific and conservation use.

In the planning area, stone ring sites are most prevalent near and north of the Missouri River. A study will be conducted to sample sites of this type for eligibility to the National Register of Historic Places and possible special designation.

Sites with possible traditional religious values, such as medicine wheel sites, will be identified and managed for preservation and possible sociocultural use.

Management will focus on the identification of ethnographic period sites. These would include early explorer, i.e. Lewis and Clark related sites and fur trade era sites. Sites with increasing public interest are Indian war period sites, including the Powder River Depot.

Cultural material scatters will be examined for their information potential.

The Cherry Creek archeological complex of sites will be protected and managed for scientific uses. Cultural sites in this complex will be treated as a unit.

Attempts will be made to identify Lewis and Clark campsites within the planning area along the Missouri and Yellowstone rivers. Future plans may include interpretation and other uses for these sites.

Identification of homestead period sites will continue with possible interpretation of a representative sample.

Management Actions Specific To Each Alternative

ALTERNATIVE A

The Hoe, Big Sheep Mountain, Powder River Depot, Jordan Bison Kill, and Seline cultural resource sites would not be designated as areas of critical environmental concern. In these sites locatable mineral entry, mineral material sales and permits, nonenergy leasable mineral development, and coal leasing would be allowed. Geophysical exploration would not be allowed, and oil and gas leasing would be allowed with no surface occupancy on the Powder River Depot recreational area (19 acres) and the Seline site (80 acres). Oil and gas leasing with lease terms and geophysical exploration would be allowed on the remaining sites. Also, off-road vehicle use would be designated as open, and livestock grazing and rights-of-way construction would be allowed in these cultural resource sites.

ALTERNATIVE B

Five cultural sites would be designated as areas of critical environmental concern (see map 2): Hoe (144 acres), Powder River Depot (1,386 acres), Big Sheep Mountain (360 acres), Seline (80 acres), and Jordan Bison Kill (160 acres). In these areas of critical environmental concern, locatable minerals would be withdrawn from entry, and mineral material sales and permits would not be allowed. Nonenergy leasable minerals, coal and oil and gas leasing would be closed. Geophysical exploration would not be allowed. Livestock grazing would be allowed, except on 171 acres in the Powder River Depot Area of critical environmental concern (for the Powder River Depot Special Recreation Management Area). Off-road vehicle use would be designated as limited to existing roads and trails, and rights-of-way construction would be excluded.

ALTERNATIVE C

The cultural areas of critical environmental concern would be designated as in Alternative B. These areas would be managed the same as described under Alternative A with one exception. Under this alternative rights-of-way would be avoided.

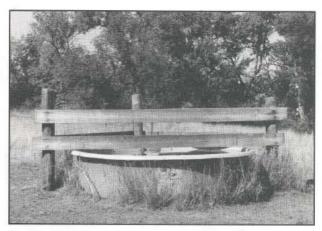
ALTERNATIVE D (PREFERRED ALTERNATIVE)

The cultural areas of critical environmental concern would be designated as in Alternative B. These areas of critical environmental concern would be managed as described under Alternative B, except under this alternative, oil and gas leasing would be allowed with a no surface occupancy stipulation and rights-of-way construction would be avoided.

ENGINEERING

Management Common To All Alternatives

Construction and maintenance of structural improvements for watershed, wildlife, fisheries, recreation and livestock grazing would be allowed when consistent with resource management objectives for the allotments or areas (BLM Manual 9101). This process requires a feasibility analysis conducted by an interdisciplinary team of resource specialists. They would initiate projects and determine their cost, environmental impacts and mitigating measures (see the Engineering appendix).



Stock water tank.

Management Actions Specific To Each Alternative

There are no additional management actions for Alternatives A, B, C, and D.

FIRE MANAGEMENT

Management Common To All Alternatives

Fire management includes both wildfire actions and prescribed fire operations. Fire will be managed in the manner most cost-efficient and responsive to resource management objectives. The resource objectives identified in this document will provide the guidelines, direction and degree of suppression to be used.

Fire use areas (see maps 3A,B) are designated areas where fuels management activities would benefit the fire suppression program and meet resource management objectives. Prescribed fire (planned and unplanned ignition) would be used throughout the planning area. The objectives are to improve vegetation production, reduce fuel loads, and maintain public safety. On areas identified for fire use, prescriptions would be written in fire management activity plans for planned and unplanned ignitions.

The intensity level for the initial attack on fires is divided into two broad categories. These categories are as follows:

Intensive Fire Suppression - The objective of intensive fire suppression is to immediately suppress wildfires using available resources. The public lands designated for inten-

Fire Management

sive fire suppression are areas with (1) large amounts of intermingled or adjacent private or state lands, and (2) high values-at-risk (items of human construction), high-value wildlife habitat, historic sites, or other resources. Wildfires in intensive fire suppression areas shall be suppressed immediately, and can include the use of dozers, motor graders, tractors with plows, air tankers, and firefighting crews.



Fire suppression.

Conditional Fire Suppression - The intensity level of conditional fire suppression is not predetermined and will vary with the conditions (impending weather forecasts, condition of vegetation, or firefighting forces committed to other fires). Cost, as well as consideration of resource loss, will be the basis of management decisions for conditional fire suppression. In areas designated for conditional fire suppression, management actions will restrict intensive fire suppression techniques. The fire situation would be carefully analyzed before committing heavy equipment.

The areas where conditional suppression techniques would be implemented are:

Hoe, Big Sheep Mountain, Jordan Bison Kill, and Seline cultural sites;

Powder River Depot and Lewis and Clark National Historic Trail cultural and recreation areas;

Cherry Creek and Calypso recreation areas;

Hell Creek, Bug Creek, Ash Creek Divide, and Sand Arroyo paleontological areas;

Smoky Butte;

piping plover and black-footed ferret wildlife sites; and

riparian/wetland areas.

The guidelines for fire rehabilitation in the planning area are:

Hand and dozer line berms will be rolled back, feathered out and blended in with the surrounding terrain.

Surface disturbances on slopes greater than 10 percent will have angular water bars constructed perpendicular to the slope at intervals no less than 100 feet apart.

Fire-killed trees that are determined to be a hazard to the user public will be felled and cut into firewood lengths. Tree stumps along roads or trails will be cut level to the ground to eliminate hazards to vehicles.

Fires greater than 25 acres will be analyzed by a resource area advisor and fire staff for possible rehabilitation needs.

BLM fire reports on fires greater than 25 acres will be accompanied by a fire rehabilitation report. This report can simply state that no rehabilitation work is required, or it can be as comprehensive as needed to assess environmental impacts, mitigation measures, and monitoring plans to measure success.

Management Actions Specific To Each Alternative

There are no additional management actions for Alternatives A, B, C, and D.

FORESTRY

Management Common To All Alternatives

Forestlands in the planning area with 10 percent or more canopy cover per acre are managed for the enhancement of other resources, not for the production of forest products or sawtimber.

Wood product sales for posts and poles, Christmas trees, and firewood would be allowed only in the Knowlton, Pine Unit, and Missouri Breaks areas (see maps 4A,B). The harvesting of posts and poles is a selective cutting process, the preferred post size is 6 to 8 inches in diameter and 4 to 6 feet in height. Ponderosa pine is used for posts and poles, while juniper is used for posts. This harvesting is conducive to natural regeneration.

For Christmas trees, an area is designated by the authorized officer and individuals are allowed to select a tree. Ponderosa pine and juniper are the most desirable and both regenerate naturally.

Harvesting of firewood is allowed on designated public lands for dead trees, with ponderosa pine being the primary species.

Wildings are live vegetative products sold off of public lands. They are used for landscaping and include yucca, cactus, grasses, pine trees, and willows.

Sales for sawtimber would not be allowed except salvage harvest of ponderosa pine affected by insects, fire, or other natural causes.

Harvest of cottonwood would be allowed on public land only when human safety is a factor, or when disease or insect infestations are threatening cottonwood stands.

Surface disturbance in the limber pine stand in the Terry Badlands (see map 4B) would not be allowed. The only exception would be if disease or insect infestations were threatening the stand and control methods were necessary.

Management Actions Specific To Each Alternative

There are no additional management actions for Alternatives A, B, C, and D.

HAZARDOUS MATERIALS AND WASTE MANAGEMENT

Management Common To All Alternatives

The BLM will minimize future hazardous materials contamination and its associated risks, costs, and liabilities on public lands in authorizing activities. The BLM will protect the health and safety of public land users. No authorizations will be made for solid or hazardous waste disposal facilities on public land.

Prior to the BLM acquiring land through purchase, exchange, or withdrawal relinquishment, the area shall be inventoried for hazardous substances or contamination in accordance with Department of Interior policy. The BLM will not acquire any contaminated real estate except at the

direction of Congress, or for good cause with the approval of the Secretary.

A contingency plan has been prepared to direct and coordinate a BLM response to any reported incident involving the accidental or intentional spill or release of potentially hazardous substances on public land. Clean up would be in cooperation with the Montana State Department of Health and Environmental Sciences, Solid and Hazardous Waste Bureau.

Management Actions Specific to Each Alternative

There are no additional management actions for Alternatives A, B, C, and D.

LANDS

Management Common To All Alternatives

Access is one of the primary considerations in exchanges. Easements would be considered in areas where exchanges cannot be utilized to resolve access conflicts.

The acquisition of additional public access is a recognized public need in some parts of the resource area. During the past 10 years, the resource area has acquired new access routes through the purchase of easements, land exchanges and negotiation of reciprocal rights-of-ways. An aggressive program will continue to acquire additional access where identified needs exist, utilizing purchase of easements, land exchanges which provide needed access points, validation of RS 2477 rights-of-ways and reciprocal rights-of-ways. The resource area will continue to pursue needed public access points identified by public interest groups.

Emphasis would be placed on land tenure adjustment and easement acquisition within the planning area. All land exchanges will be based on willing buyer/willing seller. The goal of the lands program would be to consolidate the scattered public lands increasing management efficiency and accessibility. Prior to initiation of any land adjustment actions, consideration will be given to the impact on the affected county's payment in lieu of taxes and consultation with the county government will be sought.

The objective criteria for disposal and retention areas are as follows:

DISPOSAL AREAS

The public land in the disposal areas (see map 30) consists of small tracts or parcels that are widely scattered, possess limited resource values, and are difficult to manage. BLM's objective is to dispose of these types of public land in these areas. Disposal would be through sale or exchange consistent with Sections 203 and 206 of the Federal Land Policy and Management Act of 1976.

Exchanges or acquisitions may be considered to acquire desirable tracts within the disposal areas or add to existing public lands within these areas meeting the long-term management objective criteria.

Disposal Criteria

The following criteria would be used to identify parcels for disposal:

- 1. Lands of limited public value.
- Widely scattered parcels which would be difficult for BLM to manage beyond minimal custodial administration and have no significant values.
- Lands with high public values proper for management by other federal agencies, or state, or local government.
- Land which would aid in aggregating or repositioning other public lands or public land resource values to facilitate national, state, and local objectives.

Each parcel identified for sale or exchange would be subject to certain conditions before disposal: hazardous waste, wilderness, wildlife, riparian/wetland evaluations, and cultural and mineral clearances and reports. The results of the evaluations and reports would be included in an environmental analysis. A notice of realty action would be subsequently published. Parcels would be retained if the clearances, reports, or environmental analysis show any resource values worth retaining.

RETENTION AREAS

The BLM's long-term objectives for retention areas (see map 30) are to retain and manage the public lands. Specific objectives are to consolidate public land with public access and resource values into units BLM can effectively manage.

Individual tracts or parcels in the retention areas may be disposed or repositioned through sale or exchange when significant management efficiency, greater public values, or other objectives would be met.

General Acquisition Criteria:

- Facilitate access to areas retained for long-term public use.
- Enhance congressionally designated areas, rivers or trails.
- 3. Enhance designated areas of critical environmental concern.
- 4. Facilitate national, state, and local BLM priorities or mission statement needs.
- 5. Stabilize or enhance local economies or values.
- Enhance the opportunity for new or emerging public land uses or values.
- 7. Secure for the public significant water-related land interest. These interests would include lakeshore, riverfront, stream or pond sites.
- 8. Important riparian/wetland areas.
- 9. Acquisition of cultivated lands will be avoided, unless such acquisition is clearly necessary to attain a specific resource goal.

Program Specific Acquisition Criteria:

Cultural Resources - Any cultural site to be acquired should meet the following evaluation standards:

- 1. High research values.
- 2. Moderate scarcity.
- 3. Possess some unique values, such as association with an important historic person or high aesthetic value.
- 4. Contribute significantly to interpretive potential cultural resources already in public ownership.

Minerals -

- 1. Consolidation of mineral estates.
- Acquisition in response to a federal project need, as in the case of a dam project. Criteria for this type of acquisition would generally include:
 - a. When the development of a federal project precludes the mineral estate owner from exercising development rights.
 - When the exercise of the mineral estate owner's right of development would materially interfere with the federal project.

Recreation - Acquire land with the following significant values:

- National values, such as Congressionally designated areas, rivers, or trails.
- State values that enhance recreation trails and waterways or the interstate, state, and multi-county use.
- 3. Local values for extensive use, such as hunting, fishing, off-road vehicle, and snowmobile use.

Wilderness - Acquire inholdings within wilderness study areas and within the boundaries of Congressionally designated wilderness areas under BLM administration.

Wildlife Habitat Management - Areas for acquisition would be lands of any size with significant wildlife values as defined below:

- 1. Threatened and endangered species.
 - a. Federally listed species.
 - b. Federal candidate species.
 - c. State listed species of special concern.
- 2. Fisheries.
- 3. Big game. Important habitat such as crucial winter areas, fawning, calving, and security areas.
- 4. Upland game birds, migratory birds, and waterfowl. Crucial breeding, nesting, resting, roosting, feeding, and wintering habitat areas of complexes.
- Raptors. Existing and potential nesting areas for sensitive species or significant nesting complexes for nonsensitive complexes.
- 6. Nongame. Crucial habitat complexes.

OTHER LAND ACTIONS

Whenever possible, major rights-of-way would be constructed within or next to existing rights-of-way, such as highways and railroads. Environmentally sensitive areas identified during the grant application examination would be avoided. In areas where rights-of-way are allowed, stipulations from the BLM Manual 2800 would be used to protect resource values.

Land use permits, leases, and easements would be issued on a discretionary basis, consistent with Section 302 of the Federal Land Policy and Management Act of 1976.

Unauthorized uses of public land will be resolved in an expeditious manner. Unauthorized uses include agricultural, occupancy, exclosures, and rights-of-way. Unauthorized users are liable for past rental, plus administrative costs, and costs for rehabilitation of the affected lands.

Table 3 contains recommendations for the existing withdrawals.

TABLE 3 WITHDRAWALS

	Acres
Recommended for Continuation ¹	
International Boundary	293.46
Medicine Lake National Wildlife Refuge	24,508.07
Fox Lake Game Management Area	160.00
Bureau of Sport Fisheries and Wildlife Waterfowl Production Area	26.32
Charles M. Russell National Wildlife Refuge	290,222.45
Corps of Engineers (Fort Peck)	3,756.11
Fort Keogh Livestock Experiment Station	9,851.56
Total	328,817.97
Revocations of Withdrawals ¹	
Lower Yellowstone Project	858.71
Fort Buford Project	913.60
Public Water Reserve 107 (McCone)	237.53
Milk River Project	36.69
Corps of Engineers (Fort Peck)	206,976.45
Public Water Reserve 107 (Garfield)	160.00
Buffalo Rapids Project (Bureau of Reclamation)	113.53
Total	209,296.51

¹See the Lands appendix for further information on withdrawals.

Management Actions Specific To Each Alternative

ALTERNATIVE A

Rights-of-way would be allowed throughout the planning area. Public lands would not be transferred to Fallon County for a sanitary landfill (see map 5). The public lands (3,942 acres) next to the Makoshika State Park would not be disposed through the Recreation and Public Purposes Act to the Montana Department of Fish, Wildlife and Parks.

ALTERNATIVE B

Rights-of-way construction would be excluded from the cultural areas of critical environmental concern (2,130 acres), paleontological areas of critical environmental concern (39,996 acres), the Smoky Butte Area of Critical Environmental Concern (80 acres), wildlife areas of critical environmental concern (1,167 acres), the special recreation management areas (21,022 acres), and from December 1 through March 31 in crucial winter range (636,265 acres) and allowed elsewhere in the planning area.

Public land (160 acres) would be sold to Fallon County for a sanitary landfill (see map 5). Land in T. 13 N., R. 51 E., sec. 32 (640 acres) would be acquired, preferably by exchange, into public ownership for the Cherry Creek Special Recreation Management Area. Alternative methods of acquisition would be pursued only after all reasonable exchange proposals had been explored. To protect life or property approximately 203 acres in T. 12 N., R. 51 E., sec. 12 would be acquired through fee title or a conservation easement. Makoshika State Park Special Recreation Management Area (3,924 acres) would be managed through a cooperative agreement with the Montana Department of Fish, Wildlife and Parks; the recreation and public purposes application would not be approved.

ALTERNATIVE C

Right-of-way construction would be avoided in Makoshika State Park, in the areas of critical environmental concern, and in special recreation management areas (64,224 acres). Public lands (640 acres) would be exchanged with Fallon County for a sanitary landfill (see map 5). Land in T. 13 N., R. 51 E., sec. 32 (640 acres) would be acquired, preferably by exchange, into public ownership for the Cherry Creek Special Recreation Management Area. Alternative methods of acquisition would be pursued only after all reasonable exchange proposals had been explored. To protect life or property approximately 203 acres in T. 12 N., R. 51 E., sec. 12 would be acquired through fee title or a conservation easement. Makoshika State Park (3,924 acres) would be

disposed through the Recreation and Public Purposes Act of 1926, as amended, to Montana Department of Fish, Wildlife and Parks.

ALTERNATIVE D (PREFERRED ALTERNATIVE)

Rights-of-way would be avoided in cultural areas of critical environmental concern, in wildlife areas of critical environmental concern, in Makoshika State Park, in the special recreation management areas (33,110 acres) and excluded in the Smoky Butte Area of Critical Environmental Concern (80 acres). The Makoshika State Park recreation and public purposes application would be modified to consider transfer of 2,700 acres to the Montana Department of Fish, Wildlife and Parks. Fallon County would receive 640 acres of public land by sale for a sanitary landfill (see map 5). Land in T. 13 N., R. 51 E., sec. 32 (640 acres) would be acquired, preferably by exchange, into public ownership for the Cherry Creek Special Recreation Management Area. Alternative methods of acquisition would be pursued only after all reasonable exchange proposals had been explored. To ensure no private development below Cherry Creek Dam approximately 200 acres in T. 12 N., R. 51 E., sec. 12 would be acquired through fee title or a conservation easement.

LIVESTOCK GRAZING MANAGEMENT

Management Common To All Alternatives

Management actions are designed to maintain or improve vegetation condition. Management actions include grazing use, grazing activity plans and systems, utilization levels, range improvements, and vegetation treatment. Increases or decreases in grazing preference animal unit months may be implemented based on resource conditions within an allotment. Temporary adjustments may result, due to conditions such as drought, fire, flood, or insect infestation. Long-term adjustments are based on monitoring data that supports changes in grazing preference. These adjustments will be consistent with 43 CFR 4110.3 to 4110.3-3 and the Montana Drought Policy.

Coordinated activity plans and allotment management plans are used to develop grazing management and multiple-use objectives, such as managing 80 percent of the uplands in late seral to potential natural community or in desired plant community, and 75 percent of the riparian areas in proper functioning condition by 1997. The Livestock appendix lists allotments with proposed allotment management plans,

allotments with "I" category allotment management plans, the remaining "I" category allotments, and the status of existing allotment management plans. BLM will take immediate action to resolve the problems on "I" category allotments. The areas' ability to respond to these management actions will vary: utilization objectives may be met within 1 to 3 years, riparian objectives may be met within 3 to 7 years, and ecological status or desired plant community objectives may be met within 5 to 15 years.

Management Actions Specific To Each Alternative

ALTERNATIVE A

Livestock grazing would be canceled for coal development (640 to 830 animal unit months on 3,400 to 4,400 acres each year) over the 40-year mine life.

ALTERNATIVE B

Livestock grazing would be excluded in the Clark Trail (2,900 animal unit months), Cherry Creek (482 animal unit months), Powder River Depot (65 animal unit months), and Calypso (11 animal unit months) special recreation management areas, and the Piping Plover (5 animal unit months) areas of critical environmental concern. Livestock grazing would be excluded from December 1 through March 31 in crucial winter ranges (8,880 animal unit months).

Livestock grazing (36 animal unit months) would be canceled on the 160 acres sold to Fallon County for a sanitary landfill.

ALTERNATIVE C

This alternative would exclude livestock grazing on the Piping Plover Area of Critical Environmental Concern (5 animal unit months). Federal grazing privileges would be canceled on Makoshika State Park (304 animal unit months) as 3,924 acres would be transferred to the Montana Department of Fish, Wildlife and Parks under the Recreation and Public Purposes Act of 1926, as amended. Federal grazing privileges (145 animal unit months) would be canceled on the 640 acres exchanged for the Fallon County sanitary landfill, and 145 animal unit months would be acquired (one grazing permittee would lose 145 animal unit months, but another permittee would gain 145 animal unit months). Grazing would be canceled for coal development (640 to 830 animal unit months on 3,400 to 4,400 acres each year during the 40-year mine life).

ALTERNATIVE D (PREFERRED ALTERNATIVE)

Livestock grazing would be excluded from May 1 through July 15 in the Piping Plover Area of Critical Environmental Concern (5 animals unit months). In addition, 558 animal unit months would be excluded in the Cherry Creek, Calypso, and Powder River Depot special recreation management areas. The sale of 640 acres to Fallon County for a sanitary landfill would cancel 145 animal unit months. The disposal of Makoshika State Park to Montana Department



Livestock

of Fish, Wildlife and Parks would cancel 150 animal unit months. Grazing would be canceled for coal development (640 to 830 animal unit months on 3,400 to 4,400 acres each year) during the 40-year mine life.

MINERALS

COAL

Management Common To All Alternatives

The planning area is within the Fort Union Coal Region and competitive leasing is reviewed by the Regional Coal Team. At this time, the region is decertified (see BLM Manual H-3420-1) and not subject to regional coal sales. The coal planning process is described in the "Coal" section of the Minerals appendix. Since there has been no request for leasing, coal activity is not an issue in this document.

Management Actions Specific To Each Alternative

ALTERNATIVE A

The BLM will provide for the development of federal coal in a systematical manner, consistent with the federal coal management program and policies, environmental integrity, and national energy needs.

Only coal classified as suitable for leasing in past planning would be available. This coal was identified in the Fort Union Regional Coal Team call for expressions of interest (USDI, BLM 1982c). Pending application of the surface-owner consultation screen, coal would be acceptable for further consideration for leasing or exchange on 354,641 acres containing 6.97 billion tons of coal (see maps 6A,B,C,D).

ALTERNATIVE B

No coal would be acceptable for leasing or exchange.

ALTERNATIVE C

Pending the application of the surface-owner consultation screen, coal would be acceptable for further consideration for leasing or exchange on 583,771 acres containing 6.22 billion tons of coal (see maps 7A,B,C,D).

ALTERNATIVE D (PREFERRED ALTERNATIVE)

Pending the application of the surface-owner consultation screen, coal would be acceptable for further consideration for leasing or exchange on 580,547 acres containing 6.18 billion tons of coal (see maps 7A,B,C,D).

LOCATABLE MINERALS

Management Common To All Alternatives

The Mining Law of 1872, as amended, governs the location of mining claims. It provides for exploration, discovery, and mining of metallic and certain nonmetallic minerals on federal lands. This law has five elements: (1) discovery of a valuable mineral deposit, (2) location of mining claims, (3) recordation of mining claims, (4) maintenance of mining claims, and (5) mineral patenting. The BLM manages the last three elements (see "Locatables" section in the Minerals appendix).

The management program for locatable minerals is administered under federal regulations (43 CFR 3809) and the Memorandum of Understanding between the Montana Department of State Lands and the BLM (BLM Manual H-3809-1, appendix 1). Minerals acquired by the federal government under the Bankhead Jones Act of 1937 are not subject to the General Mining Law of 1872, as amended; these minerals are leasable. Minerals acquired after the passage of the Federal Land Policy and Management Act of 1976, as amended, are subject to the General Mining Law.

There is no requirement to notify the BLM of casual use activities. These uses cause little disturbance and generally include activities not involving earth-moving equipment, blasting, or cyanide leaching. Operations consisting of fewer than 5 acres of disturbance require a notice of operations; more than 5 acres of disturbance requires a plan of operations and a reclamation plan. Special category lands defined in 43 CFR 3809.1-4 require a plan of operations, regardless of size of disturbance. Claim operations shall be reclaimed as outlined in 43 CFR 3809.1-1.

Management Actions Specific To Each Alternative

ALTERNATIVE A

There would be no new withdrawals from locatable mineral entry.

ALTERNATIVE B

Lands would be withdrawn from entry under the General Mining Law of 1872, as amended, on the following areas of critical environment concern: wildlife (1,167 acres), pale-ontological (48,713 acres), and cultural (1,802 acres). Lands would also be withdrawn from entry on the Powder River Depot, Makoshika State Park, Cherry Creek, and Lewis and Clark Trail special recreation management areas (32,864 acres). In the Smoky Butte Area of Critical Environmental Concern, 280 acres would be withdrawn from locatable mineral entry subject to valid existing rights.

ALTERNATIVE C

Lands would be withdrawn from entry under the General Mining Law of 1872, as amended, on the wildlife areas of critical environmental concern (1,167 acres), and Makoshika State Park (6,628 acres). Lands would be withdrawn from mineral entry subject to valid existing rights in the Smoky Butte Area of Critical Environmental Concern (280 acres).

ALTERNATIVE D (PREFERRED ALTERNATIVE)

Lands would be withdrawn from entry under the General Mining Law of 1872, as amended, on the cultural (1,802 acres), paleontological (48,713 acres), and Piping Plover (16 acres) areas of critical environmental concern and on the Powder River Depot, Cherry Creek special recreation management areas (2,236 acres) and Makoshika State Park (6,628 acres). The Smoky Butte Area of Critical Environmental Concern (280 acres) would be withdrawn from locatable mineral entry subject to valid existing rights. If a plan of operations is received, BLM will do a validity examination (see "Locatable Minerals" section in the Minerals appendix for a discussion of the process).

MINERAL MATERIALS

Management Common To All Alternatives

The BLM responds to the requests for sand and gravel used in road surfacing and maintenance. The BLM issues free use permits and sales contracts for mineral materials where disposal is considered to be in the public interest, while providing for reclamation of mined lands, and preventing undue and unnecessary degradation of nonmineral resources. Mineral materials permits are considered on a case-by-case basis and issued at the discretion of the area manager (see "Mineral Materials" section in the Minerals appendix).

Mineral material sales are valued according to the BLM statewide pricing schedule. Contracts valued at more than \$5,000 require individual appraisals before sale. Environmental documentation for material sales or permits for fewer than 50,000 cubic yards and disturbing fewer than 5 acres may be processed with a Categorical Exclusion Review. Sales or permits more than 50,000 yards or 5 acres require an environmental analysis. A reclamation plan and operating stipulations to protect resources that are not mineral are included in the permit. The site reclamation bond is held by the Montana Department of State Lands. Material sales and permits are monitored for production verification, and for operating and reclamation compliance.

Crucial winter range would be open to mineral material sales. Mineral material sales would not be allowed in Makoshika State Park (6,628 acres), according to the Memorandum of Understanding between the BLM, the Montana Department of Fish, Wildlife and Parks, and Dawson County.

Management Actions Specific To Each Alternative

ALTERNATIVE A

Mineral material permits and sales would be allowed.

ALTERNATIVE B

Mineral material sales and permits would not be allowed on the following areas of critical environmental concern: Smoky Butte (280 acres), cultural (1,802 acres), paleontological (48,713 acres), and wildlife (1,167 acres). Mineral material sales and permits would not be allowed on the Powder River Depot, Cherry Creek, and Lewis and Clark Trail special recreation management areas (26,236 acres) and the Fallon County sanitary landfill (160 acres).

ALTERNATIVE C

Mineral material sales and permits would not be allowed in the areas of critical environmental concern for wildlife (1,167 acres), in the Smoky Butte Area of Critical Environmental Concern (280 acres), and in the Fallon County sanitary landfill (640 acres).

ALTERNATIVE D (PREFERRED ALTERNATIVE)

Mineral material sales and permits would not be allowed on the following areas of critical environmental concern: Smoky Butte (280 acres), cultural (1,802 acres), paleontological (48,713 acres), and wildlife (11,182 acres). Mineral material sales and permits also would not be allowed on the Powder River Depot, Cherry Creek, and Lewis and Clark Minerals - Locatable

Trail special recreation management areas (26,236 acres) and in the Fallon County sanitary landfill (640 acres).

NONENERGY LEASABLE MINERALS

Management Common To All Alternatives

Exploration and development of nonenergy leasable minerals are authorized under the Mineral Leasing Acts of 1920 and 1947, as amended. These minerals include, but are not limited to gypsum, sodium, and potassium. A plan amendment will be required before issuing surface mining leases. Prospecting permits will be available for all lands not withdrawn from mineral leasing in conformance with 43 CFR 3500. The leasing functions of the nonenergy leasable minerals program are prospecting permitting, preference right leasing, and competitive leasing (see "Nonenergy Leasable Minerals" section in the Minerals appendix for description).

Management Actions Specific To Each Alternative

ALTERNATIVE A

Leasing and development of nonenergy leasable minerals would be allowed.

ALTERNATIVE B

Nonenergy leasable minerals would be closed to leasing in the following areas of critical environmental concern: cultural (1,802 acres), paleontology (48,713 acres), recreation (280 acres), and wildlife (1,167 acres). Nonenergy leasable mineral leasing also would be closed in the Powder River Depot, Cherry Creek, Lewis and Clark Trail, and Makoshika State Park special recreation management areas (32,864 acres).

ALTERNATIVE C

Nonenergy leasable minerals would be closed to leasing in the wildlife areas of critical environmental concern (1,167 acres) and in Makoshika State Park (6,628 acres).

ALTERNATIVE D (PREFERRED ALTERNATIVE)

Nonenergy leasable minerals would be closed to leasing in the following areas of critical environmental concern: cultural (1,802 acres), paleontology (48,713 acres), recreation (280), and wildlife (11,182 acres). Nonenergy leasable mineral leasing also would be closed in the Powder River Depot, Cherry Creek, Lewis and Clark Trail, special recreation management areas (26,236 acres), and Makoshika State Park (6,628 acres).

OIL AND GAS

Management Common To All Alternatives

Federal oil and gas leasing authority for public lands are found in the Mineral Leasing Act of 1920, as amended; and for acquired lands in the Acquired Lands Leasing Act of 1947, as amended. Leasing of federal oil and gas is affected by other acts such as the National Environmental Policy Act of 1969, the National Historic Preservation Act of 1966, the Federal Land Policy and Management Act of 1976, the Wilderness Act of 1964, the Endangered Species Act of 1973, as amended, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987. Regulations governing federal oil and gas leasing and lease operations are contained in 43 CFR 3100, Geophysical Exploration (43 CFR 3150),



Oil well in the Cedar Creek Anticline.

Onshore Operating Orders (43 CFR 3164.1), the Makoshika State Park Memorandum of Understanding (located in the Big Dry Resource Area files), and BLM manuals and instruction memorandums.

A lease grants the right to explore, extract, remove, and dispose of oil and gas deposits that may be found on the leased lands. The lessee may exercise the rights conveyed by the lease, subject to lease terms and any lease stipulations (modifications of the lease), and permit approval requirements. When geophysical exploration is allowed, it will follow the procedures and regulations discussed in the "Oil and Gas" section of the Minerals appendix.

Conditions for existing oil and gas leases (valid existing rights) cannot be changed by the decisions in this document until the lease expires. When the lease expires, the area will be managed for oil and gas according to the decisions reached in this document.

The BLM planning process determines availability of federal lands for oil and gas leasing where BLM is the surface management agency. For federal oil and gas lands where the surface is managed by another federal agency such as the U.S. Fish and Wildlife Service or the Bureau of Reclamation, the BLM will consult with that agency before issuing leases. Oil and gas lands owned by Indians or Tribes are evaluated by the Bureau of Indian Affairs with subsequent leases issued by the Bureau of Indian Affairs. In areas where oil and gas development may conflict with other resources, the areas may be closed to leasing. The regulations at part 43 CFR 3100.0-3(d); the Secretary's general authority to prevent the waste and dissipation of public property (43 U.S.C. 1457(12) (1982); and the Attorney General's Opinion of April 2, 1941 (Vol. 40 Op. Atty. Gen 41) allow the BLM to lease lands that are otherwise unavailable for leasing if oil and gas is being drained from such lands. If the unavailable lands are under the jurisdiction of another agency, leasing of such lands would only occur if the affected surface management agency grants authority to the BLM to lease.

Unavailable lands under the administration of the BLM will be leased only if a state or fee well is completed within the same spacing unit. These lands will be leased with a no surface occupancy and no subsurface occupancy stipulation with no waiver, modification or exception provisions. There would only be a paper transaction with no physical impacts on the unavailable or unleased lands. There would be no exploration or development (drilling or production) within the unavailable or unleased lands and no additional exploration or development adjacent to these lands as a consequence of lease issuance. After issuance of a lease, the lease would be committed to a communitization agreement and the United States would then receive revenue in propor-

tion to its acreage interest as it bears to the entire acreage interest committed to the agreement.

Areas where oil and gas development could coexist with other resources uses would be open to leasing, with or without stipulations. Stipulations are a part of the lease only when environmental and planning records show the need for them. Three types of stipulations describe how lease rights are modified: no surface occupancy, timing limitation (seasonal restriction), and controlled surface use. (For descriptions see "Leasing Process" in the "Oil and Gas" section of the Minerals appendix.)

Stipulations may be changed by application of waivers, exceptions, or modifications. The decision whether to grant waivers, exceptions, or modifications generally occurs during the Application for Permit to Drill approval process. If the authorized officer determines the change to be major or significant, the proposed action will be subject to a 30-day public review period.

<u>Waivers</u> are a permanent exemption from a lease stipulation. This occurs when the resource does not require the protection of stipulation. For example, a waiver would be granted to an area stipulated for steep slopes if the authorized officer determines that none of the leasehold includes slopes over 30 percent.

Exceptions are granted on a case-by-case basis. Each time the lessee applies for an exception, the resource objective of the stipulation must be met. An example of an exception is the granting of access into crucial winter range before the end of the period specified by the timing stipulation; in this plan the period from December 1 though March 31. If an open winter has occurred and the winter range is no longer being used before March 31, an exception might be granted for entry before the time period has elapsed. The decision is granted only for the year in question. In the following year an exception would have to be evaluated on current seasonal conditions and use.

Modifications are fundamental changes to the provisions of a lease stipulation either temporarily or for the term of the lease. A specific example of a modification to a stipulation in this plan is in an area of active coal mining. There is a no surface occupancy stipulation on coal mines with approved mine plans. When an area has been mined, there is no longer any need to restrict access for oil and gas development. The boundary of the coal mine area which is stipulated would be modified to allow oil and gas development to occur where the coal has been removed.

If the lease is changed by a waiver or permanent modification, BLM would issue a written notice to the lessee and any other affected lessees. The notification to lessees is titled "Notice to Amend the Lease Terms."

Minerals - Oil and Gas

Additional information can be provided to the lessee in the form of a lease notice. This notice does not place restrictions on lease operations, but does provide information about applicable laws and regulations, and the requirements for additional information to be supplied by the lessee.

After lease issuance, the lessee may conduct lease operations with an approved permit (see "Conditions of Approval" in the "Oil and Gas" section of the Minerals appendix). Proposed drilling and associated activities must be approved before beginning operations. The operator must file an Application for Permit to Drill or Sundry Notice that must be approved according to (1) lease stipulations, (2) Onshore Oil and Gas Orders, and (3) regulations and laws (see "Permitting" in the "Oil and Gas" section of the Minerals appendix).

Monitoring will be conducted as described in table 58 of the Monitoring appendix.

On Bureau of Reclamation lands, stipulations that are recommended by the Bureau of Reclamation will be used (see "Oil and Gas" section in the Minerals appendix).

Oil and gas leasing will be allowed in Makoshika State Park, in accordance with the Memorandum of Understanding between the BLM, the Montana Department of Fish, Wildlife and Parks, and Dawson County. Oil and gas leasing would not be allowed (nondiscretionary) in the Fox Lake Game Management area (160 acres). For additional discussions on oil and gas recovery, regulations, lease stipulations, and permit processing see the "Oil and Gas" section in the Minerals appendix.

Tables 4 through 8 present the lease stipulations and the acreage affected by each stipulation. Lease stipulations which would be applied in each alternative are presented in table 4 as Management Common to All Alternatives. Lease stipulations which change in each alternative and areas protected by lease terms or closed to leasing are in tables 5 through 8.

TABLE 4
SUMMARY OF OIL AND GAS STIPULATIONS AND CLOSURES
COMMON TO ALL ALTERNATIVES

	High Development Potential Acres	Moderate Development Potential Acres	Total Mineral Acres Stipulated	Acres Closed to Leasing
Stipulations ¹				
No Surface Occupancy				
Bald eagle nests	0	515	515	0
Ferruginous hawk nests	0	466	466	0
Grouse leks and nests	945	43,358	44,303	0
Least tern habitat	4,443	12,689	17,132	0
Limber pine area	0	3,019	3,019	0
Paleontological localitie	es 0	120	120	0
Peregrine falcon nests	0	0	0	0
VRM I	3,921	80,122	84,043	0
Controlled Surface Use				
Makoshika State Park	0	6,628	6,628	0
Prairie dog habitat	0	30,637	30,637	0
VRM II	26,078	380,944	407,022	0
Timing Restrictions				
Elk spring calving	0	0	0	0
Grouse nesting zone	5,634	398,856	404,490	0
Raptor nests	1,039	43,180	44,219	0
Withdrawals (nondiscretionary)				
Fox Lake Game				
Management Area	0	160	0	160

¹See "Oil and Gas" in the Minerals appendix for descriptions.

Management Actions Specific To Each Alternative

ALTERNATIVE A

TABLE 5
SUMMARY OF OIL AND GAS SPECIAL STIPULATIONS,
LEASE TERMS, AND STANDARD STIPULATIONS
(Alternative A)

I	High Development Potential Acres	Moderate Development Potential Acres	Total Mineral Acres Stipulated
Special Stipulations			
No Surface Occupancy			
Cultural sites	80	19	99
Recreation areas	0	19	19
Riparian/wetlands	1,660	3,690	5,350
Piping plover site	16	0	16
Controlled Surface Use			
Potential black-footed ferret habitat	0	5,687	5,687
Steep slopes	33,422	685,680	719,102
Timing Restrictions			
Crucial winter ranges	69,373	631,606	700,979
Lease Terms and Standard Lease Stipulations			
Recreation areas	4,500	21,717	26,217
Potential prairie dog habitat for the black-footed fe	erret 0	118,403	118,403
Smoky Butte	0	280	280
Paleontological areas	0	48,713	48,713
Cultural sites	0	1,703	1,703

ALTERNATIVE B

 ${\bf TABLE~6}\\ {\bf SUMMARY~OF~OIL~AND~GAS~SPECIAL~STIPULATIONS~AND~CLOSURES~(Alternative~B)}$

	High Development Potential Acres	Moderate Development Potential Acres	Total Mineral Acres Stipulated	Mineral Acres Closed
Special Stipulations				
No Surface Occupancy				
Piping Plover ACEC	16	0	16	0
Fallon County sanitary landfill	160	0	160	0
Closed (Discretionary)				
Cultural ACECs	80	1,722	0	1,802
Black-footed Ferret ACEC, potential				
black-footed ferret habitat and potential	prairie			
dog habitat for the black-footed ferret	0	62,035	0	62,035
Smoky Butte ACEC	0	280	0	280
Paleontological ACECs	0	48,713	0	48,713
Steep slopes	33,422	685,680	0	719,102
Crucial winter ranges	69,373	631,606	0	700,979
Special recreation management areas	4,500	21,736	0	26,236
Riparian/wetlands	1,660	3,690	0	5,350

ALTERNATIVE C

TABLE 7 SUMMARY OF OIL AND GAS SPECIAL STIPULATIONS AND LEASE TERMS (Alternative C)

	High Development Potential Acres	Moderate Development Potential Acres	Total Mineral Acres Stipulated	Acres With Lease Terms
Special Stipulations				
No Surface Occupancy				
Cultural ACECs	80	19	99	0
Cherry Creek and Powder River				
Depot SRMAs	0	2,236	2,236	0
Lease Terms				
Cultural ACECs	0	1,703	0	1,703
Fallon County sanitary landfill	640	0	0	640
Smoky Butte ACEC	0	280	0	280
Paleontological ACECs	0	48,713	0	48,713
Lewis and Clark Trail SRMA	4,500	19,500	0	24,000
Steep slopes	33,422	685,680	0	719,102
Riparian/wetlands	1,660	3,690	0	5,350
Crucial winter ranges	69,373	631,606	0	700,979
Piping plover ACEC	16	0	0	16
Black-footed Ferret ACEC, potential				
black-footed ferret habitat and potential	prairie			
dog habitat for the black-footed ferret	0	62,035	0	62,035

ALTERNATIVE D (PREFERRED ALTERNATIVE)

TABLE 8
SUMMARY OF OIL AND GAS SPECIAL STIPULATIONS AND LEASE TERMS
(Alternative D)

	High Development Potential Acres	Moderate Development Potential Acres	Total Mineral Acres Stipulated	Acres With Lease Terms
Special Stipulations ¹				
No Surface Occupancy				
Cultural ACECs	80	1,722	1,802	0
Special recreation		-,	-,	•
management areas	4,500	21,736	26,236	0
Fallon County sanitary landfill	640	0	640	0
Smoky Butte ACEC	0	280	280	0
Paleontological ACECs	0	48,713	48,713	0
Riparian/wetlands	1,660	3,690	5,350	0
Piping Plover ACEC	16	0	16	0
Controlled Surface Use				
Steep slopes	33,422	685,680	719,102	0
Black-footed Ferret ACEC and potenti		,	,	
black-footed ferret habitat	0	5,164	5,164	0
Timing Restrictions				
Crucial winter ranges	69,373	631,606	700,979	0
Lease Terms				
Potential prairie dog habitat				
for the black-footed ferret	0	56,839	0	56,839

¹See the "Oil and Gas" section in the Minerals appendix for descriptions.

PALEONTOLOGY

Management Common To All Alternatives

Surface-disturbing activities are subject to the following requirements. The lessee or operator shall immediately inform the BLM of paleontological resources discovered as a result of operations, and will stop until directed to proceed by the BLM. An on-the-ground survey for fossil material would be conducted by the BLM and the operator would be notified where and when to continue operations. If the fossil material is significant, the activity would be moved so the locality will not be disturbed. If the activity cannot be moved, mitigation measures would be completed. This may

be simply collecting the fossil(s) and associated data immediately, or it may require a major excavation of the site.

Paleontological collecting permits are issued to institutions with the proper facilities for preparation, study, and storage of fossil material. The researchers in charge of the field work must be qualified to remove and handle the fossil material. The fossils and associated data are to remain available to researchers for study and for public display. A report of the results of the field work must be filed with the BLM. Excavations to recover paleontological materials or data will be backfilled. Topsoil is usually removed and stockpiled separately at the beginning of an excavation. It is spread over the backfilled material during reclamation. The area would be recontoured to match the original land-scape, and reseeded with native species. On slopes exceed-

Paleontology

ing 30 percent, water bars (water diversions) or other methods to reduce erosion would be constructed.

Monitoring will be conducted as described in table 58 of the Monitoring appendix.

Surface-disturbing activities would not be allowed on the Garbani, Harbicht Hill, and Flat Creek paleontological localities.

Management actions occurring within the Judith River Formation, Hell Creek Formation, and the Tullock Member of the Fort Union Formation will be analyzed for impacts to the paleontological resource (see maps 12A,B,C,D).

Livestock grazing would be allowed on paleontological localities and on the Ash Creek Divide, Bug Creek, Sand Arroyo, and Hell Creek paleontological areas.

Management Actions Specific To Each Alternative

ALTERNATIVE A

No paleontological areas would be designated as areas of critical environmental concern. Activities would be allowed subject to standard procedures.

ALTERNATIVE B

Four paleontological areas (39,996 surface and 48,713 mineral acres), the Hell Creek, Bug Creek, Sand Arroyo, and Ash Creek Divide would be designated areas of critical environmental concern in this alternative. To insure protection and enhancement, these areas would be withdrawn from mineral entry and closed to mineral material sales and permits, nonenergy leasable minerals, coal and oil and gas leasing, and geophysical exploration would not be allowed. Off-road vehicle use would be designated as limited to existing roads and trails, and rights-of-way construction would not be allowed.

ALTERNATIVE C

The same paleontological areas of critical environmental concern would be designated as in Alternative B. These areas would be managed the same as Alternative A, except under this alternative rights-of-way construction would be avoided.

ALTERNATIVE D (PREFERRED ALTERNATIVE)

The Hell Creek, Bug Creek, Sand Arroyo, and Ash Creek Divide paleontological areas (39,996 surface and 48,713

mineral acres) would be designated as areas of critical environmental concern in this alternative (see map 11). These areas of critical environmental concern would be managed as described under Alternative B, except under this alternative oil and gas leasing would be allowed with a no surface occupancy stipulation and right-of-way construction would be allowed.

RECREATION

Management Common To All Alternatives

In addition to existing policies and guidance, recreation management will follow Recreation 2000: A Strategic Plan (USDI, BLM 1989d) and Recreation 2000 Tri-State Strategy (USDI, BLM 1990b). Emphasis is directed toward five goals: (1) budgeting, (2) visitor information, (3) access and land tenure adjustments, (4) facilities, and (5) resource protection.

The Lewis and Clark National Historic Trail will continue to be managed in accordance with the act which established the Trail in 1978. The Trail will be managed for public use and enjoyment, while preserving the historic and cultural resources that are related to the events that occurred during the Lewis and Clark Expedition. Management objectives would be (1) at a minimum, maintain the existing public land base that adjoins the Yellowstone and Missouri rivers; (2) increase, where appropriate and consistent with this plan, the public land base that adjoins the Yellowstone and Missouri rivers; (3) increase public use and enjoyment opportunities; and (4) maintain an undeveloped visual setting near known expedition campsites.

Any changes in the landscape within view of the Lewis and Clark National Historic Trail would be guided by Class II visual resource management objectives as described in this section. Future management actions would give full consideration to lessening adverse impacts to adjacent private landowners and users, and harmonize with and compliment existing multiple-use plans. Management actions would include acquiring and marking access to the Trail, installing interpretive signs, and developing interpretive brochures.

Priority would be placed on developing partnerships with other federal, state and local agencies, and private entities when the partnership benefits the public. Examples include developing wildlife viewing areas, managing campgrounds, acquiring access to public lands, developing fishing reservoirs and associated facilities, constructing trails and developing informational and interpretive brochures.

Priority would be placed on acquiring legal access to public lands through exchanges and easements. Signing and identifying through signing parcels that are legally accessible and provide important recreation opportunities.

Guides and outfitters and other permitted recreational uses would be authorized according to the Special Recreation Permit Guidelines for Montana, North and South Dakota (USDI, BLM 1987c). Determination of maximum allowable use would be according to the criteria in the BLM Manual H-8372-1. Outfitting and guiding would be authorized on a first-come, first-served basis until an area's maximum allowable use is being approached. The affected area's maximum allowable use would be approached when one of the following conditions occur:

user conflicts exist either among commercial outfitters or between the non-guided public and commercial outfitters;

damage to resources from visitor use is considered unacceptable;

enforcement and compliance problems exist; or

conflicts with adjacent landowners exist.

When one of the above conditions is reached, and the conflict cannot be resolved through negotiations with users, the following process would be in effect until an activity plan is completed and the carrying capacity is established:

no new permits for the activity in conflict will be issued for the affected area;

a temporary allocation will be established using criteria such as camp spacing, temporary use areas and day use limitations; and

other types of commercial activities may be authorized if they do not add to the existing conflict.

The activity plan will show desired use levels based on the area's carrying capacity. The plan also will establish the method of distributing commercial use.

The BLM would continue to cooperate with the Montana Department of Fish, Wildlife and Parks and private landowners to improve hunter access. This would involve participation in block management or developing access agreements with private landowners.

Visual resource management classifications (see maps 19A,B,C,D) on public land in the planning area are Class I (83,240 acres), Class II (424,492 acres), Class III (11,409 acres), and Class IV (1,184,689 acres). Surface occupancy



and use in visual resource management Class I areas applied to public lands would be managed according to Interim Management for Lands Under Wilderness Review (BLM Manual H-8550-1).

Where publicly owned minerals underlie privately owned surface, visual protection measures would be recommended to the private surface owner to be used at their discretion.

To maintain aesthetic values, semipermanent and permanent facilities in visual resource management Class II would require special design. This design would include location, painting, and camouflage to blend with natural surroundings and to meet visual quality objectives.

Class I - The objective of this class is to preserve the existing character of the landscape. The goal of this class is to provide a landscape that appears unaltered by man. This class provides for natural ecological changes. It does not restrain limited management activity, or those activities specifically authorized by the Wilderness Act of 1964 and described in BLM Manual H-8550-1. This is an interim classification until Congress determines which areas are wilderness. Lands designated as wilderness by Congress would continue to be managed under Class I objectives. Lands not designated wilderness would be managed under visual resource management Class II objectives.

Recreation

Class II - The objective is to keep the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the dominant features of the landscape.

Class III - The objective is to partially keep the existing character of the landscape. The level of change to the landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the dominant features of the landscape.

Class IV - The objective is to provide for management activities that require major changes of the existing land-scape. The level of change to the landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to lessen the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Monitoring will be conducted as described in table 58 of the Monitoring appendix.

In the Wilderness Study Areas and areas recommended for wilderness (83,240 acres), off-road vehicle use would be limited to existing roads and trails until Congress decides which areas to designate as wilderness. Those areas designated as wilderness will be closed to off-road vehicle use with exceptions as identified in the Wilderness Act or a future wilderness management plan. The areas Congress decides not to designate as wilderness will remain limited to off-road vehicle use. The one exception would be actions authorized by BLM.

In Makoshika State Park, mineral material sales and permits, and oil and gas leasing and development would be conducted according to the Memorandum of Understanding between BLM, Montana Department of Fish, Wildlife and Parks, and Dawson County. The Park would be unsuitable for coal development.

Management Actions Specific To Each Alternative

ALTERNATIVE A

The planning area would be designated as an extensive recreation management area. Development of recreation facilities would be minimal. Only the minimum facilities necessary to resolve resource conflicts would be developed. There would be no recreation areas designated as special recreation management areas and Cherry Creek Dam would not be constructed. In the Powder River Depot recreation area oil and gas leasing would be allowed with no surface occupancy, and geophysical exploration would be closed (19 acres). Makoshika State Park would not be disposed to Montana Department of Fish, Wildlife and Park through a recreation and public purposes patent. There would be 1,620,590 acres open to off-road vehicle use. In areas open to off-road vehicle use, vehicles would be allowed without restrictions.

ALTERNATIVE B

Off-road vehicle use would be limited on 1,620,350 acres to protect vegetation, soil and water resources, and closed on 80 acres (Calypso Trail) to preserve the wilderness characteristics in the Terry Badlands Wilderness Study Area. In areas closed to off-road vehicle use, motorized vehicles are not allowed within the area except for emergency vehicles, fire suppression and rescue vehicles, BLM operation and maintenance vehicles, other federal, state, or local agency vehicles in the performance of an official duty and other motorized vehicles on official business specifically approved by the authorized officer of the Bureau of Land Management. In limited off-road vehicle use areas, parking or camping would be allowed within 100 yards of a road or trail. Special permits would be required for camps beyond that distance. Vehicle travel off existing roads and trails would be allowed only for authorized or permitted uses. These uses include medical or other emergencies, livestock management practices, geophysical exploration, firewood cutting, travel within active prairie dog colonies, retrieval of big game animals, and snow machines when snow cover is adequate. During particularly severe snow years, it may be necessary to consider limiting or closing some areas containing large numbers of wintering wildlife to snow machines. Special off-road vehicle permits for individuals with disabilities would be issued.

Smoky Butte (80 acres) would be designated an area of critical environmental concern. Off-road vehicle use would be limited to protect the vegetation and soil resources. The area would be withdrawn from locatable mineral entry subject to valid existing rights. Mineral material sales, coal, oil and gas and nonenergy mineral leasing would be closed. Livestock grazing, geophysical exploration, and rights-of-way developments would be excluded.

The following special recreation management areas would be designated and the remainder of the planning area would be designated as an extensive recreation management area:

Calypso is a 69-acre parcel next to the Terry Badlands Wilderness Study Area, along the Yellowstone River.

Management objectives include opportunities for camping, picnicking, day hiking, fishing, sightseeing and wildlife viewing. To achieve these objectives, the BLM would develop overnight tent campsites, restrooms, drinking water, picnic tables and fire rings.

There are no federal minerals in the Calypso Special Recreation Management Area. Livestock grazing and rights-of-way construction would not be allowed. Off-road vehicle use would be limited to existing roads and trails.

Cherry Creek would provide additional recreational facilities in southeastern Montana. It would consist of 2,858 acres with a dam with a 50-foot pool depth (see the Recreation appendix for dam specifications). To provide fishing, boating, camping, picnicking and waterfowl hunting, the proposed facility should include overnight recreational vehicle and tent campsites, restrooms, drinking water, boat ramps, picnic tables and fire rings.

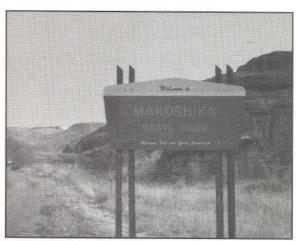
Livestock grazing, mineral material sales and permits, rights-of-way construction, and geophysical exploration would not be allowed in the Cherry Creek Special Recreation Management Area. Locatable minerals would be withdrawn from entry. Coal, oil and gas, and nonenergy leasable minerals would be closed to leasing. Off-road vehicle use would be limited to existing roads and trails.

Makoshika State Park (3,924 acres) would be managed and developed according to the cooperative agreement between BLM and the Montana Department of Fish, Wildlife and Parks. This agreement could provide the public with picnic tables and trails for day hiking, sightseeing and wildlife viewing.

In this special recreation management area, rights-of-way construction would not be allowed. Off-road vehicle use would be limited to existing roads and trails. Locatable minerals would be withdrawn from entry, and nonenergy leasable minerals would be closed to leasing.

Powder River Depot would provide additional recreational facilities in southeastern Montana. It would be 171 acres with overnight campsites, and a display depicting the history of the area. Management objectives to provide fishing, river access, camping, and picnicking would be met with development of tent camping sites, restrooms, drinking water, boat ramps, picnic tables, and fire rings.

Livestock grazing, mineral material sales and permits, rights-of-way construction, and geophysical exploration would not be allowed in the Powder River Depot Special Recreation Management Area. Locatable minerals would be withdrawn from entry. Coal, oil and gas, and nonenergy



Makoshika State Park, Glendive.

leasable minerals would be closed to leasing. Off-road vehicle use would be limited to existing roads and trails.

Lewis and Clark Trail recreation area is 14,000 acres of public land along the Missouri and Yellowstone rivers. Management objectives are to enhance water-based recreation resources while meeting public demand for river access. Facilities would consist primarily of boat ramps, picnic tables and fire rings. Where use exceeds the carrying capacity of the resource, additional facilities such as restrooms and campsites would be constructed. Development would be designed to compliment, rather than compete with, any nearby state, federal, or private facilities. The Calypso and Powder River Depot special recreation management areas would not be included within this corridor. Management for these areas is discussed above.

Rights-of-way construction, mineral material permits and sales, and livestock grazing would not be allowed in the Lewis and Clark Trail Special Recreation Management Area. Oil and gas, coal and nonenergy mineral leasing would be closed. Geophysical exploration would not be allowed and off-road vehicle use would be limited to existing roads and trails.

ALTERNATIVE C

There would be 1,616,666 acres designated open to offroad vehicle use. See Alternative A for a description of open off-road vehicle use.

Makoshika State Park would not be designated a special recreation management area and would be disposed to the Montana Department of Fish, Wildlife and Parks. The Park would be managed the same as described in Alternative B, except under this alternative, BLM-administered livestock

Recreation

grazing would be canceled and rights-of-way construction would be avoided.

Smoky Butte (80 acres) would be designated an area of critical environmental concern. Off-road vehicle use would be open. The area would be withdrawn from locatable mineral entry subject to valid existing rights. Mineral material sales, and coal leasing would be closed. Livestock grazing, geophysical exploration, oil and gas, and nonenergy mineral leasing would be allowed. Rights-of-way developments would be avoided.

The planning area would be designated as an extensive recreation management area, except the following 17,098 acres designated as special recreation management areas:

Calypso would include the recreation improvements described in Alternative B. This area would be managed the same as Alternative A, except rights-of-way construction would be avoided under this alternative.

Cherry Creek would be constructed with a 40-foot pool depth dam (see the Recreation appendix for dam specifications). Recreation improvements would be the same as those described in Alternative B. Cherry Creek would be managed the same as Alternative A, except under this alternative oil and gas leasing would be allowed with a no surface occupancy stipulation, geophysical exploration would not be allowed and rights-of-way construction would be avoided.

Powder River Depot would include the recreation improvements described in Alternative B. This area would be managed the same as Alternative A, except under this alternative, rights-of-way construction would be avoided.

Lewis and Clark Trail recreation area would include the recreation improvements described in Alternative B. This area would be managed the same as Alternative A, except under this alternative, rights-of-way construction would be avoided.

ALTERNATIVE D (PREFERRED ALTERNATIVE)

There would be 2,320 acres open to off-road vehicle use to provide recreational opportunities to off-road vehicle users (see map 13). To protect the vegetation, soil and water resources, 1,614,770 acres would be limited off-road vehicle use, and 80 acres (Smoky Butte) closed to off-road vehicle use (see map 14). The Calypso Trail (80 acres) would also be closed (see map 31D) to protect the wilderness characteristics of the Terry Badlands Wilderness Study Area. No vehicles would be allowed on areas closed, including on the existing roads and trails. See Alternative A

for a definition of open off-road vehicle use and Alternative B for definitions of limited and closed off-road vehicle use.

Makoshika State Park (2,700 acres) would not be designated a special recreation management area, as it would be disposed to the Montana Department of Fish, Wildlife and Parks (see map 17). This area would be managed the same as Alternative B, except under this alternative rights-of-way construction would be avoided and BLM-administered livestock grazing would be canceled.

Smoky Butte (80 acres) would be designated an area of critical environmental concern (see map 14). Off-road vehicle use would be closed. The area would be withdrawn from locatable mineral entry subject to valid existing rights. Mineral material sales, coal, and nonenergy mineral leasing would be closed. Oil and gas leasing would be allowed with a no surface occupancy stipulation. Geophysical exploration and livestock grazing would be allowed. Rights-of-way developments would be excluded.

The planning area would be designated as an extensive recreation management area, except the following 17,098 acres areas designated as special recreation management areas:

Calypso (see map 15) would be managed the same as alternative B, except rights-of-way construction would be avoided under this alternative.

Cherry Creek (see map 16) would be constructed with a 50-foot pool depth dam. A separate environmental impact statement would be written to analyze impacts from the proposed dam. Funding for this environmental impact statement and costs for building the dam would require a supplemental appropriation from Congress. If the dam is not constructed, Cherry Creek will not be managed as a special recreation management area. The dam specifications are in the Recreation appendix. This area would be managed the same as described in Alternative B, except under this alternative oil and gas leasing would be allowed with a no surface occupancy stipulation, geophysical exploration would not be allowed, and rights-of-way construction would be avoided.

Powder River Depot (see map 18) would be managed the same as Alternative B, except under this alternative, oil and gas leasing would be allowed with a no surface occupancy stipulation and rights-of-way construction would be avoided.

Lewis and Clark Trail recreation area (see maps 31A,B,C,D) would be managed the same as Alternative B, except under this alternative livestock grazing would be allowed, rights-of-way construction would be avoided, oil and gas leasing would be allowed with a no surface occu-

pancy stipulation, and geophysical exploration would be allowed.

SOIL AND WATER

Management Common To All Alternatives

BLM consults and coordinates with other federal, state, and local agencies as required by the Watershed Protection and Flood Control Act, Clean Water Act, and Office of Management and Budget Circular A-81.

The federal Clean Water Act (Public Law 92-500), section 305(b) and section 106(e)(1), requires each state to submit a biennial report on surface and ground water quality. The State of Montana's 1992 305(b) report includes a listing of streams considered to be impaired within the Big Dry Resource Area (see Soil and Water appendix). Many of these streams have limited public lands along their stream reach. Impaired streams that have a significant portion of public lands in the stream's basin are considered critical watersheds.

Watershed activity plans, allotment management plans, and habitat management plans would be developed and implemented by consultation, coordination and cooperation with the operator, local and state agencies, other federal agencies, and interest groups (see Soil and Water appendix). BLM will file water rights with the state of Montana for water-related projects on public land. A data base containing pertinent information will be maintained for water rights held by the BLM. BLM activities conducted will meet Montana water quality standards (see "Water" section in the Monitoring appendix).

BLM will manage the Cherry Creek watershed to improve the water quality by improving the riparian habitat along the channels of the ephemeral and intermittent streams. Riparian management is discussed under "Riparian" in the "Vegetation" section of this chapter. BLM will be involved in the Cherry Creek Water Quality Special Project according to the Memorandum of Understanding between the BLM, Prairie County Conservation District, Agricultural Stabilization and Conservation Service, Prairie County Cooperative State Grazing District, Cooperative Extension Service, Soil Conservation Service, and Montana Department of State Lands. This Memorandum of Understanding is available in the Big Dry Resource Area office.

The BLM objectives, on upland areas and along stream bottoms, are to maintain adequate vegetation cover to increase soil productivity and stability. Management objec-

tives include preventing the contamination of soils and water from spills. Vehicle and equipment servicing and refueling activities are conducted away from wet areas and drainages, except where present facilities exist. Proper techniques are used to collect petroleum products, and to clean up spills. The operator must develop a Spill Prevention Control and Countermeasure Plan (40 CFR 112).

Ground water wells, oil and gas, and facilities are to be completed in such a manner as to reduce the potential for contamination or depletion of the ground water aquifer. Wells will be constructed as regulated by the Montana Department of Natural Resources and Conservation and Department of Health and Environmental Sciences. Protective measures must include, at a minimum, cementing or grouting the annulus of the borehole and grading the land surface to direct surface waters away from the wellbore. Federal oil and gas wells will be plugged according to federal regulations (see "Production and Development" under "Oil and Gas" section in the Minerals appendix).

Surface disturbance on slopes 30 percent or greater will be avoided whenever possible. If the surface-disturbing action cannot be avoided, appropriate mitigation measures will be applied to lessen the impacts to the soil.

The following are reclamation actions to mitigate the impacts to the soil and water resources from surface-disturbing activities:

mulching and nurse crops;

road surfacing (gravel, scoria, or other surface materials);

surface water drainage (drop structures, culvert placement, water bars, erosion fabrics, gully plugs, contour furrows, ripping, chiseling, and pitting);

development of seed mixture, site-specific, for revegetation; (example: 3 pounds per acre dryland alfalfa or 2 pounds per acre yellow sweet clover, 2 pounds per acre green needle grass, 4 pounds per acre western wheat grass, 5 pounds per acre slender wheat grass);

topsoil removal, storage and replacement (site specific recommendations of depths);

snow fencing for additional moisture in establishment of vegetation;

proper seedbed preparation, including ripping depth, drill or broadcast seeding, raking and discing;

produced water and mud pit design, including liners, proper compaction, and location away from perennial

Soil and Water

and ephemeral streams. Ground water monitoring wells, if necessary;

surface casing installed through the Fox Hills geologic formation to protect domestic ground water sources from possible contamination;

reduced surface disturbance (smaller pad size, joint roads, pipeline rights-of-way, and selection of drill sites requiring least surface disturbance, shorter access roads).

Monitoring will be conducted as described in table 58 of the Monitoring appendix.

Management Actions Specific To Each Alternative

There are no additional management actions for Alternatives A, B, C, and D.

VEGETATION

Management Common To All Alternatives

The vegetation management objective on public lands is to achieve plant communities with ecological status ranging from late seral to potential natural community within 20 years (see Vegetation appendix). Occasionally the desired plant community may have an ecological status less than late seral or potential natural community because of other management objectives taking precedence.

Land treatments (chemical, fire, biological and mechanical) will be consistent with the guidelines stated in the Final Vegetation Treatment on BLM Lands in Thirteen Western States (USDI, BLM 1991b), Northwest Area Noxious Weed Program Final Environmental Impact Statement and Supplement (USDI, BLM 1987d), and BLM Manual H-1740-1. BLM Manual H-1740-1 stated guidelines for investment of public and private funds and documentation for resource improvements and treatments on public lands (see Engineering appendix).

Manual vegetation treatment is not common in the planning area because of the costs involved. This treatment can be used for establishment of vegetation in riparian areas when other methods are not recommended. Hand planting of willow or cottonwood cuttings (sections of twigs or stems) or seedlings will be allowed in riparian areas.

Prescribed burning is used to enhance growth, and vigor of certain species, and to maintain a specific vegetation community. Prescribed burning will be avoided on highly erodible slopes. Areas will be burned to leave a mosaic pattern, with sagebrush cover if possible. Livestock grazing is delayed for at least one growing season. A two-year delay may be necessary for browse regrowth or when artificial seeding is required. Prescribed burns are carried out according to the procedures in the BLM Manual 9214 and H-9211-1.

Mechanical treatments will be avoided on slopes greater than 15 percent, on highly erodible soils, or in riparian/wetland areas. Mechanically-treated areas will be rested for two growing seasons (April through September). Undisturbed areas will be left for livestock and wildlife walkways in contour furrowed areas, and waterways will not be disturbed. Mechanical treatments will be consistent with the 1971 Memorandum of Understanding (on file in the Big Dry Resource Area) between the BLM and the Montana Department of Fish, Wildlife and Parks. This Memorandum of Understanding states that the BLM will advise the regional supervisor of the Montana Department of Fish, Wildlife and Parks of any proposed treatments and that the regional supervisor will be given the opportunity to provide comments on these treatments.

Interseeding occurs when desirable species are not present in the treatment area or on highly erodible soils to stabilize the soils. The seed used must be tested for purity and free of noxious weed seeds. When seeding crested wheatgrass, an appropriate forb mix such as alfalfa or sweet clover could be included.

Harvesting of nonnative hay or seed will be authorized when consistent with resource management objectives for the allotments or areas. The BLM has the option to reduce animal unit months during the year the hay is cut if the cutting of hay will result in a reduction of the carrying capacity for the allotment. The operator will be informed of any potential reduction at the time they request prior approval for haying. Harvesting will be restricted in grouse nesting habitat within 2 miles of a lek until June 15. Harvesting will be excluded within 1/2 mile of an active raptor nest until August 1.

BLM will cooperate with county weed boards in the planning area for control efforts directed toward noxious weeds on public lands. This cooperation would consist of providing BLM funding, exchanging information, and control efforts by BLM crews to expand county efforts. Cooperation by BLM could be limited because of weed control funding and unavailability of staffing and equipment.

BLM uses integrated pest management for noxious weed control (USDI, BLM 1985, 1987d, 1991b). This is an approach to reduce noxious weed damage to tolerable levels by using predators, parasites, genetically-resistant hosts, environmental modifications, and when necessary and appropriate, chemical pesticides (herbicides). Methods of treatment and acceptable levels of infestation will be described in a site-specific environmental analysis. An acceptable level of infestation may be incorporated into a desired plant community where total eradication is not economically or biologically reasonable.

Weed control on public lands (see map 21) is in cooperation with county weed programs. When county crews are unavailable, BLM crews and equipment may be used. Personnel involved in pesticide application must be trained and a certified licensed applicator must be present. Individuals involved in herbicide applications, or using contaminated tools or equipment will wear protective clothing and equipment (USDI, BLM 1991b, BLM Manual 9011, H-9011-1).

Chemical treatment is designed for reduction of noxious weeds such as leafy spurge and knapweed species. Treatment occurs on Montana noxious weeds (see table 76 in the Vegetation appendix). Methods and rates are in the Vegetation Treatment on BLM Lands in Thirteen Western States Final Environmental Impact Statement (USDI, BLM 1991b), the Northwest Area Noxious Weed Control Program Final Environmental Impact Statement (USDI, BLM 1985) and the supplement (USDI, BLM 1987d). Herbicides and rates which can be used on public lands are identified in table 77 in the Vegetation appendix. Usually, the maximum rates would be used on small isolated infestations or newly introduced noxious weeds. The rates of herbicide application depend on species present, condition of the nontarget vegetation, soil type, water table depth, and other water sources.

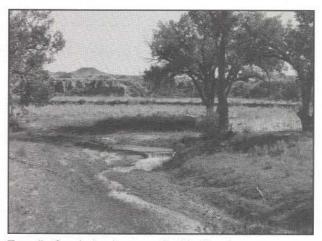
When applying herbicides, buffer strips will be provided next to dwellings, domestic water sources, agricultural land, streams, lakes, and ponds. A minimum buffer strip 100-feet wide must be provided for aerial application, 25 feet for vehicle application, and 10 feet for hand application. Deviations will be according to the herbicide label. The herbicide will be applied by hand on each plant within 10 feet of water (USDI, BLM 1991b, BLM Manual H-9011-1).

Biological weed control methods have been implemented to a limited extent. Grazing by sheep or goats helps to prevent leafy spurge from spreading. The effectiveness of insects is uncertain because an adequate population of insects and the right combination takes time to establish. The BLM will continue to work with agencies, universities and others using insects as a biological control agent.

The BLM contracted in 1992 with the Montana Natural Heritage Program to inventory plant communities. This inventory did not identify any rare plant communities (see the "Vegetation" section in chapter 3). Species of special concern will be managed in accordance with BLM Manual H-6840. This manual provides guidance for the BLM to manage species of special concern in a manner which would not cause these species to become threatened or endangered. Inventories will continue as needed.

A 50 percent browse utilization level is standard for the planning area, though other levels can be incorporated into the terms and conditions of a grazing permit or lease, or a grazing activity plan. If proper utilization levels are exceeded, adjustments are made in cooperation with the livestock operator. If an agreement cannot be reached, a decision concerning livestock use will be issued according to 43 CFR 4110.3-2(b) and 43 CFR 4160.

Forage increases resulting from improved grazing management or vegetation treatment would be allocated consistent with the management objectives for the particular allotment or area.



Tenmile Creek riparian area, Prairie County.

Riparian/wetland objectives are to restore and maintain riparian/wetland areas so 75 percent or more are in proper functioning condition by 1997. All activity plans with riparian/wetland areas will have the same goal as well as specific objectives such as desired plant communities, stream channel conditions, water quality standards, maximum allowable streambank alteration by livestock, minimum stubble heights of herbaceous plants at the end of the growing season, and a maximum allowable utilization level on woody plants. Management actions to accomplish those objectives include:

Implementation of grazing systems, seasons of use adjustments, water developments, fencing, and live-stock management.

Vegetation

Include in activity plans, the amount of seedling, sapling, pole, and mature and dead woody key species on sites with potential for woody species. Describe the desired condition of the areas as well as the desired ecological status.

No trough or tank would be installed in areas containing important riparian/wetland vegetation, unless no possible alternative site exists. If the water source is necessary and no possible alterative site exists, appropriate mitigation measures (such as fencing or season of use adjustments) would be implemented.

New spring developments would be fenced.

Placement of salt and mineral blocks in riparian/wetland areas would not be allowed.

Study enclosures would be established in riparian/ wetland sites to compare progress, evaluate management, and confirm recovery rates. This will be a cooperative effort with the permittees.

Monitoring will be conducted as described in table 58 of the Monitoring appendix.

Management Actions Specific To Each Alternative

There are no additional management actions for Alternatives A, B, C, and D.

WILDLIFE

Management Common To All Alternatives

Specific measurable objectives are incorporated into coordinated resource management plans, habitat management plans or allotment management plans to meet wildlife habitat goals. Grazing methods, land treatments, or other improvements are designed and monitored to accomplish these objectives.

Whenever possible and appropriate, habitat enhancements such as islands, or nesting platforms will be constructed on new or existing reservoirs, ponds, potholes, or river systems. Bird ramps will be installed in stock water tanks located on the public lands.

Monitoring will be conducted as described in table 58 of the Monitoring appendix.

Surface disturbance (other than water developments and fences) will not be authorized within 1/4 mile of sage grouse and sharp-tailed grouse leks. Disturbance will not be authorized within 2 miles of a lek from March 1 through June 15 each year to protect sage grouse and sharp-tailed grouse nesting habitat. In addition, no disturbance will be authorized within 1/2 mile of a raptor nest from March 1 to August 1 each year. Surface disturbance would not be allowed on least tern nesting habitat along the Yellowstone River.

Priority for fishing reservoir construction would be based on proximity to residential areas. The BLM would try to develop self-sustaining game fish populations; however, most reservoirs would be maintained as a put-and-take fishery (stocked yearly). The BLM would try to improve existing reservoirs for fisheries habitat. The BLM also will consider fisheries potential during the design phase of new reservoirs. Fishery habitat improvements could include planting of aquatic species, fencing of reservoirs, placement of structures to provide cover or spawning areas, or increasing reservoir depth for existing fisheries reservoirs (see map 25).

In crucial winter range (see map 24), the following activities would be allowed: locatable mineral development, mineral material sales, and permits and nonenergy leasable mineral development. Crucial winter range will be unsuitable for coal development.

Great blue heron and double-crested cormorant rookeries identified on the public lands will be protected. Surface disturbance will not be allowed within 1,000 feet of rookeries.

Power lines will follow the recommendations in Suggested Practices for Raptor Protection on Power Lines (Olendorff et al. 1981).

The piping plover site in Sheridan County will be unsuitable for coal development.

Aerial hunting of predators will be permitted in the planning area subject to the stipulations outlined in the Annual Animal Damage Control Plan (USDA 1993).

In the black-footed ferret area, livestock grazing will be allowed.

The BLM will continue to be proactive in their management of threatened and endangered species, as well as those species which are candidates for listing. Management will be directed at recovering those species which are currently listed as threatened or endangered, and maintaining and enhancing habitat for those species which are candidates for listing.

The BLM "Special Status Species" list was approved on May 6, 1994, (see Wildlife appendix). These species include those that could easily become endangered or extinct in a state. These species will receive protection to that extent which is afforded to candidate species. This means BLM will conduct no actions which could contribute to these species being listed as threatened or endangered.

BLM manages existing prairie dog habitat for black-footed ferret recovery, associated species, viewing, and recreational shooting.

Actions affecting prairie dogs or their habitat is a cooperative effort among the affected landowners, the BLM, the U.S. Fish and Wildlife Service, the Montana Department of State Lands, and the Montana Department of Fish, Wildlife and Parks. Management actions could include prairie dog expansion, reintroduction, management of the recreational shooting of prairie dogs, plague abatement, or prairie dog control. BLM would pursue exchanging lands with willing landowners to acquire additional prairie dog habitat.

Management of prairie dog colonies on public lands is subject to the Miles City District Black-tailed Prairie Dog Management Plan (see Wildlife appendix). This plan states that prairie dog towns that occur on the public lands, and do not cause significant adverse impacts to the soil and vegetation resources, are to be managed for wildlife and recreational values.

Prior to surface-disturbing activities, prairie dog complexes greater than 80 acres require a black-footed ferret clearance according to U.S. Fish and Wildlife Service standards. If black-footed ferrets are not evident, activities can be authorized.

If prairie dog control is proposed, and state or private lands are involved, a cooperative effort will be employed. Before controlling prairie dogs on public lands, the BLM will:

Consult with the grazing permittee and the Montana Department of Fish, Wildlife and Parks. Additional consultation would be conducted with the U.S. Fish and Wildlife Service as required by Section 7 of the Endangered Species Act.

Complete a damage assessment to determine the nature and extent of resource damage attributable to prairie dogs by identifying changes in condition, forage availability, and soil loss.

Prepare or revise allotment management plans, habitat management plans, and coordinated resource management plans to include prairie dog management objectives and to identify management actions that provide for resource recovery.

Complete an inventory on each prairie dog town for federally listed threatened and endangered species.

The BLM will investigate the possibility of using nontoxic methods (perch poles, barriers, water and vegetation enhancement) for prairie dog control.

Management Actions Specific To Each Alternative

ALTERNATIVE A

No wildlife areas of critical environmental concern would be designated.

In crucial winter range, oil and gas development would be allowed with a timing restriction from December 1 through March 31 each year on 700,977 public mineral acres. Geophysical exploration would not be allowed on those acres during that same period.

Oil and gas leasing would be allowed in potential blackfooted ferret habitat, with controlled surface use (5,687). Geophysical exploration would not be allowed on those 5,687 acres.

Oil and gas leasing would be allowed with no surface occupancy in the piping plover site (16 acres). Geophysical exploration would not be allowed on that site.

ALTERNATIVE B

Two wildlife areas would be designated as areas of critical environmental concern: the Black-footed Ferret Area of Critical Environmental Concern (1,151 acres) and the Piping Plover Area of Critical Environmental Concern (16 acres).

Active prairie dog colonies on public land (1,151 acres), as well as any future colonies inside a public land "core area" (10,015 acres), would be managed for black-footed ferret reintroduction and recovery. Prairie dog colonies within the core area would be designated the Black-footed Ferret Area of Critical Environmental Concern (see map 23). BLM will manage prairie dog colonies outside the core area as potential black-footed ferret habitat until such time as the BLM, the U.S. Fish and Wildlife Service and the Montana Depart-

Wildlife

ment of Fish, Wildlife and Parks make a cooperative determination with the private landowners and the Department of State Lands on black-footed ferret reintroduction and recovery. If a cooperative agreement is reached, prairie dog colonies outside of the core area would become part of the reintroduction area.

Should reintroduction occur, future BLM activities that could impact the black-footed ferret or its habitat will require formal consultation with the U.S. Fish and Wildlife Service. If the decision is not to reintroduce the black-footed ferret, the Black-footed Ferret Area of Critical Environmental Concern designation would be dropped and the area managed the same as other prairie dog towns.

The following guidelines could be proposed in the Blackfooted Ferret Area of Critical Environmental Concern if the decision is made to reintroduce black-footed ferrets:

Animal damage control would be allowed with restrictions about the placement of M44s, traps, and snares, to avoid accidental killing or loss of black-footed ferrets.

Recreational activities (varmint shooting, camping, rock hounding, or sight-seeing) would be allowed, and managed to prevent adverse impacts to the black-footed ferret.

Hunting and trapping would be allowed according to state game laws and regulations.

Predator control and monitoring for diseases could be necessary.

A public education program would be developed to explain black-footed ferret management.

The BLM will work with the Montana Black-footed Ferret Work Group on site evaluation as well as other aspects of black-footed ferret recovery.

Within the Black-footed Ferret Area of Critical Environmental Concern, locatable minerals would be withdrawn from entry. Nonenergy leasable minerals, coal, and oil and gas would be closed to leasing. Geophysical exploration, mineral material sales and permits, and rights-of-way construction would not be allowed. Off-road vehicle use would be designated as limited to existing roads and trails.

Within the Piping Plover Area of Critical Environmental Concern, locatable mineral entry would be withdrawn. Nonenergy leasable mineral leasing would be closed. Rightsof-way construction, mineral material sales and permits, livestock grazing and geophysical exploration would not be allowed. Oil and gas leasing would be allowed with a no surface occupancy stipulation. Off-road vehicle use would be designated as limited to existing roads and trails.

On crucial winter ranges, oil and gas leasing would be closed and geophysical exploration would not be allowed. Off-road vehicle use would be designated as limited to existing roads and trails. Rights-of-way construction and livestock grazing would not be allowed from December 1 through March 31 each year.

ALTERNATIVE C

The wildlife areas of critical environmental concern designated in Alternative B also would be designated in this alternative.

The black-footed ferret and piping plover areas of critical environmental concern would be managed the same as described in Alternative B, except under this alternative, off-road vehicle use would be open, oil and gas leasing would be allowed with lease terms, geophysical exploration would be allowed, and rights-of-way construction would be avoided.

Crucial winter ranges would be managed the same as described in Alternative A, except under this alternative, oil and gas leasing would be allowed with lease terms, and geophysical exploration would be allowed.

ALTERNATIVE D (PREFERRED ALTERNATIVE)

Prairie dog towns on public land (1,151 acres) and the public land core area around them (10,015 acres) would be designated the Black-footed Ferret Area of Critical Environmental Concern (11,166 acres). The piping plover (16 acres) site would be designated an area of critical environmental concern (see maps 23 and 27, respectively).

The Black-footed Ferret Area of Critical Environmental Concern would be proactively managed for prairie dogs and those species dependent on that habitat. Management actions are the same as Alternative B, except under this alternative locatable mineral entry would be allowed, rights-of-way construction would be avoided and the area of critical environmental concern would allow oil and gas leasing with a controlled surface use stipulation.

The Piping Plover Area of Critical Environmental Concern would be managed the same as described under Alternative B, except under this alternative, rights-of-way construction would be avoided.

Crucial winter ranges (see map 24) would be managed the same as described in Alternative A, except under this alternative, off-road vehicle use would be designated as limited.

COMPARISON OF ALTERNATIVES

Table 9 compares management actions by issue. For additional management actions for Alternatives A, B, C, and D see "Management Common to All Alternatives" sections in this chapter.

Table 10 compares the impacts resulting from the management actions described in chapter 2.

TABLE 9 COMPARISON OF ALTERNATIVES

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred)
ТНЕМЕ	This alternative would continue existing management practices based on existing land use plans.	This alternative would resolve resource conflicts that occur under existing management by emphasizing protection of resources by minimizing development and use.	This alternative would resolve resource conflicts that occur under existing management by emphasizing development and use while mitigating impacts caused by surface-disturbing activities. Areas of special concern would be protected.	This alternative would resolve resource conflicts that occur under existing management by balancing the use of restrictions on development and use with intensive management in areas of special concern.
ISSUE 1: SPECIAL MANAGEM	MENT DESIGNATIONS			
Management Actions Affecting Special Management Areas				
Management Actions Affecting the Big Sheep Mountain (360 public surface and mineral	Would not be designated as ACECs.	Designate as ACECs.	Same as Alternative B.	Same as Alternative B (see map 2).
acres), Hoe (144 public surface and mineral acres), Jordan Bison Kill (160 public surface and 120 public mineral acres), Powder River Depot (1,386	Off-road vehicle use would be open.	Off-road vehicle use would be limited to existing roads and trails.	Same as Alternative A.	Same as Alternative B.
public surface and 1,098 public mineral acres), and Seline (80 public surface and mineral	Allow locatable mineral entry.	Withdraw from locatable mineral entry (discretionary closure).	Same as Alternative A.	Same as Alternative B.
acres) cultural sites (total: 2,130 public surface acres and 1,802 public mineral acres).	Allow mineral material permits and sales.	Close to mineral material permits and sales (discretionary closure).	Same as Alternative A.	Same as Alternative B.

	mineral development.	mineral leasing (discretionary closure).	Same as Alternative A.	Same as Alternative B.
	Allow coal leasing.	Coal leasing would not be allowed.	Same as Alternative A.	Same as Alternative B.
	Geophysical exploration would not be allowed and oil and gas leasing would be allowed with no surface occupancy on the recreational site within the Powder River Depot site (19 public mineral acres) and the Seline site. The remaining sites would allow geophysical exploration and oil and gas leasing with lease terms.	Close to oil and gas leasing (discretionary closure) and geophysical exploration.	Same as Alternative A.	Allow oil and gas leasing with a no surface occupancy stipulation and do not allow geophysical exploration.
	Livestock grazing would be allowed.	Livestock grazing would be excluded on the Powder River Depot SRMA, located within the Powder River Depot ACEC (171 acres).	Same as Alternative A.	Same as Alternative B.
	Allow rights-of-way construction.	Exclude from rights-of-way construction.	Avoid from rights-of-way construction.	Same as Alternative C.
Management Actions Affecting Smoky Butte area (80 acres public surface; 280 acres public mineral and 400 acres public coal only).	Would not be designated an ACEC.	Designate as an ACEC.	Same as Alternative B.	Same as Alternative B.
	ORV would be open.	ORV use would be limited.	Same as Alternative A.	ORV use would be closed.
	Allow locatable mineral entry.	Area would be withdrawn from locatable mineral entry subject to valid existing rights (discretionary closure).	Same as Alternative B.	Same as Alternative B.

Close to nonenergy leasable

Same as Alternative A.

Same as Alternative B.

Allow nonenergy leasable

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e D (Preferred)
ative B.
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gas leasing with a apancy stipulation hysical exploration
ative A.
ative B.
native B.
native B.
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		Anow locatable limicial citry.	entry (discretionary closure).	Same as Antimative A.	Same as Attendance B.
		Allow mineral material permits and sales.	Close to mineral material permits and sales (discretionary closure).	Same as Alternative A.	Same as Alternative B.
		Allow nonenergy leasable mineral development.	Close to nonenergy leasable mineral leasing (discretionary closure).	Same as Alternative A.	Same as Alternative B.
		Allow coal leasing.	Close to coal leasing.	Same as Alternative A.	Same as Alternative B.
		Allow oil and gas leasing and geophysical exploration.	Close to oil and gas leasing (discretionary closure) and geophysical exploration.	Same as Alternative A.	Allow oil and gas leasing with a no surface occupancy stipulation. Geophysical exploration would not be allowed.
45		Allow rights-of-way construction.	Exclude rights-of-way construction.	Avoid rights-of-way construction.	Same as Alternative A.
	Management Actions Affecting the Calypso Recreation Area (69 public surface acres; no public minerals).	No SRMA designation and area would not be managed intensively for recreation.	Designate as a SRMA. Recreation facilities would include boat ramps, picnic tables, campgrounds, potable water, and recreation vehicle access.	Same as Alternative B.	Same as Alternative B (see map 14).
		Allow livestock grazing.	Exclude from livestock grazing.	Same as Alternative A.	Same as Alternative B.
		Off-road vehicle use would be open.	Off-road vehicle use would be limited.	Same as Alternative A.	Same as Alternative B.
		Allow rights-of-way construction.	Exclude from rights-of-way construction.	Avoid from rights-of-way construction.	Same as Alternative C.

Withdraw from locatable mineral

Same as Alternative A.

Same as Alternative B.

Allow locatable mineral entry.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred)
Management Actions Affecting the Cherry Creek Recreation Area (2,858 public surface acres; 2,217 public mineral acres).	No SRMA designation, land would not be acquired, the dam would not be constructed and area would not be intensively managed for recreation.	Designate as a SRMA and allow construction of a dam with a 50-foot pool depth, and acquire 843 acres into public ownership. Recreation facilities would include boat ramps, picnic tables, campgrounds, potable water, and recreation vehicle access.	Same as Alternative B except construct a dam with a 40-foot pool depth (see map 15).	Same as Alternative B.
	Allow livestock grazing.	Exclude livestock grazing.	Same as Alternative A.	Same as Alternative B.
	Off-road vehicle use would be open.	Off-road vehicle use would be limited.	Same as Alternative A.	Same as Alternative B.
	Allow locatable mineral entry.	Withdraw from locatable mineral entry (discretionary closure).	Same as Alternative A.	Same as Alternative B.
	Allow coal leasing.	No coal leasing allowed.	Same as Alternative A.	Same as Alternative B.
	Allow mineral material permits and sales.	Close to mineral material permits and sales (discretionary closure).	Same as Alternative A.	Same as Alternative B.
	Allow nonenergy leasable mineral development.	Close to nonenergy leasable mineral leasing (discretionary closure).	Same as Alternative A.	Same as Alternative B.
	Allow oil and gas leasing and geophysical exploration.	Close oil and gas leasing (discretionary closure) and geophysical exploration.	Allow oil and gas leasing with no surface occupancy stipulation. Close geophysical exploration.	Same as Alternative C
	Allow rights-of-way construction.	Exclude rights-of-way construction.	Avoid rights-of-way construction.	Same as Alternative C.

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Management Actions Affecting the Makoshika State Park Recreation Area.	(3,924 public surface and 6,628 public mineral acres).	(3,924 public surface and 6,628 public mineral acres).	(3,924 public surface and 6,628 public mineral acres).	(2,700 public surface and 6,628 public mineral acres).
	Would not be disposed to MDFW&P through the Recreation and Public Purposes Act of 1926, as amended.	Cooperative agreement with MDFW&P.	Dispose to MDFW&P through the Recreation and Public Purposes Act.	Same as Alternative C (see map 17).
	No SRMA designation.	Designate as a SRMA. Recreational facilities could include picnic tables, trails for day hiking, sightseeing, and wildlife viewing.	Same as Alternative A.	Same as Alternative A.
	Allow livestock grazing.	Same as Alternative A.	Cancel BLM-administered livestock grazing.	Same as Alternative C.
	Off-road vehicle use would be open.	Off-road vehicle use would be limited to existing roads and trails.	Same as Alternative B.	Same as Alternative B.
	Allow locatable mineral entry.	Withdraw from locatable mineral entry (discretionary closure).	Same as Alternative B.	Same as Alternative B.
	Allow nonenergy leasable mineral development.	Close nonenergy leasable minerals (discretionary closure).	Same as Alternative B.	Same as Alternative B.
	Allow rights-of-way construction.	Exclude rights-of-way construction.	Avoid rights-of-way construction.	Same as Alternative C.
Management Actions Affecting the Lewis and Clark Trail Recreation Area (total: 14,000 public surface and 24,000 public mineral acres).	No SRMA designation and the area would not be intensively managed for recreation.	Designate a SRMA. Recreation facilities would include boat ramps, picnic tables, campgrounds, potable water and recreational vehicle access.	Same as Alternative B.	Same as Alternative B.
	Allow livestock grazing.	Exclude livestock grazing.	Same as Alternative A.	Same as Alternative A.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred)
	Off-road vehicle use would be open.	Off-road vehicle use would be limited to existing roads and trails.	Same as Alternative A.	Same as Alternative B.
	Allow rights-of-way construction.	Exclude rights-of-way construction.	Avoid rights-of-way construction.	Same as Alternative C.
	Allow locatable mineral entry.	Withdraw from locatable mineral entry (discretionary closure).	Same as Alternative A.	Same as Alternative A.
	Allow coal leasing.	Coal leasing would not be allowed.	Same as Alternative A.	Same as Alternative B.
	Allow mineral material permits and sales.	Close to mineral material permits and sales (discretionary closure).	Same as Alternative A.	Same as Alternative B.
	Allow nonenergy leasable mineral development.	Close to nonenergy mineral leasing (discretionary closure).	Same as Alternative A.	Same as Alternative B.
	Allow oil and gas leasing and geophysical exploration.	Close to oil and gas leasing (discretionary closure) and geophysical exploration.	Same as Alternative A.	Oil and gas leasing would be allowed with a no surface occupancy stipulation. Geophysical exploration would be allowed.
Management Actions Affecting the Powder River Depot Recreation Area (171 public surface acres; 19 public mineral acres).	No SRMA designation, and area would not be intensively managed for recreation.	Designate as a SRMA. Recreation facilities would include boat ramps, picnic tables, campgrounds, potable water, and recreation vehicle access.	Same as Alternative B.	Same as Alternative B.
	Allow livestock grazing.	Exclude livestock grazing.	Same as Alternative A.	Same as Alternative B.
	Allow locatable mineral entry.	Withdraw from locatable mineral entry (discretionary closure).	Same as Alternative A.	Same as Alternative B.

	Allow coal leasing.	Coal leasing would not be allowed.	Same as Alternative A.	Same as Alternative B.
	Allow mineral material permits and sales.	Close to mineral material permits and sales (discretionary closure).	Same as Alternative A.	Same as Alternative B.
	Allow nonenergy leasable mineral development.	Close to nonenergy leasable mineral leasing (discretionary closure).	Same as Alternative A.	Same as Alternative B.
	Allow oil and gas leasing with no surface occupancy and close to geophysical exploration.	Close to oil and gas leasing (discretionary closure) and geophysical exploration.	Same as Alternative A.	Same as Alternative A.
	Off-road vehicle use would be open.	Off-road vehicle use would be limited to existing roads and trails.	Same as Alternative A.	Same as Alternative B.
	Allow rights-of-way construction.	Exclude rights-of-way construction.	Avoid rights-of-way construction.	Same as Alternative C.
Management Actions Affecting Crucial Winter Range (636,265 public surface acres; 700,979 public mineral acres).	Allow livestock grazing.	Exclude livestock grazing December 1 through March 31.	Same as Alternative A.	Same as Alternative A (see map 23).
	Oil and gas development would be allowed with a timing restriction from December 1 through March 31. Geophysical exploration would not be allowed during that period.	Close to oil and gas leasing and geophysical exploration.	Allow oil and gas leasing with lease terms. Geophysical exploration would be allowed.	Same as Alternative A.
	Off-road vehicle use would be open.	Off-road vehicle would be limited.	Same as Alternative A.	Same as Alternative B.
	Allow rights-of-way construction.	Rights-of-way construction would not be allowed December 1 through March 31.	Same as Alternative A.	Same as Alternative A.

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred)
Management Actions Affecting the Black-footed Ferret Area	(1,151 public surface acres; 124,090 public oil and gas acres; 1,151 other public mineral acres).	(1,151 public surface acres; 62,035 public oil and gas acres; 1,151 other public mineral acres).	(1,151 public surface acres; 62,035 public oil and gas acres; 1,151 other public mineral acres).	(11,166 public surface acres; 62,003 public oil and gas acres; 11,166 other public mineral acres).
	No ACEC designation.	Designate 1,151 acres of public surface an ACEC.	Same as Alternative B.	Designate 11,166 acres of public surface an ACEC (see map 23).
	Allow rights-of-way construction.	Exclude rights-of-way construction.	Avoid rights-of-way construction.	Same as Alternative C.
	Off-road vehicle use would be open.	Off-road vehicle use would be limited to existing roads and trails.	Same as Alternative A.	Same as Alternative B.
	Allow locatable mineral entry.	Withdraw from locatable mineral entry (discretionary closure).	Same as Alternative B.	Same as Alternative A.
	Allow mineral material sales.	Close to mineral material sales (discretionary closure).	Same as Alternative B.	Same as Alternative B.
	Allow nonenergy leasable mineral development.	Close to nonenergy leasable mineral leasing (discretionary closure).	Same as Alternative B.	Same as Alternative B.
	Allow coal leasing.	Coal leasing would not be allowed.	Same as Alternative B.	Same as Alternative B.
	Allow oil and gas leasing with controlled surface use (5,687 public mineral acres) and close to geophysical exploration on those 5,687 acres).	Close to oil and gas leasing (discretionary closure) and geophysical exploration.	Allow geophysical exploration and oil and gas leasing with lease terms.	Same as Alternative A (5,164 public mineral acres).

		There would be no black-footed ferret core area. Prairie dog colonies would be managed for prairie dogs and associated species subject to the Miles City District Black-tailed Prairie Dog Management Plan.	Prairie dog colonies would be allowed to expand on public lands within a black-footed ferret core area (10,015 acres). The remaining prairie dog colonies would be managed subject to the Miles City District Black-tailed Prairie Dog Management Plan.	Same as Alternative B.	Prairie dog colonies would be allowed to expand on public lands within the black-footed ferret area of critical environmental concern (11,166 acres). The remaining prairie dog colonies would be managed subject to the Miles City District Black-tailed Prairie Dog Management Plan.
	Management Actions Affecting the Piping Plover Site (16 public surface acres; 16 public mineral acres).	No ACEC designation.	Designate as an ACEC.	Same as Alternative B.	Same as Alternative B (see map 26).
		Allow livestock grazing.	Exclude livestock grazing.	Same as Alternative B.	Same as Alternative B.
1		Off-road vehicle use would be open.	Off-road vehicle use would be limited to existing roads and trails.	Same as Alternative A.	Same as Alternative B.
		Allow locatable mineral entry.	Withdraw from locatable mineral entry (discretionary closure).	Same as Alternative B.	Same as Alternative B.
		Allow mineral material sales.	Close to mineral material sales (discretionary closure).	Same as Alternative B.	Same as Alternative B.
		Allow nonenergy leasable mineral development.	Close to nonenergy leasable mineral leasing (discretionary closure).	Same as Alternative B.	Same as Alternative B.
		Allow oil and gas development with no surface occupancy and close geophysical exploration.	Same as Alternative A.	Allow oil and gas leasing with lease terms. Allow geophysical exploration.	Same as Alternative A.
		Allow rights-of-way construction.	Exclude rights-of-way construction.	Avoid rights-of-way construction.	Same as Alternative C

TABLE 9 (continued) COMPARISON OF ALTERNATIVES

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred)
ISSUE 2: RESOURCE ACCESSIBILITY AND AVAILABILITY				
Management Actions Affecting Resource Accessibility and Availability				
Sales and Acquisitions	Landownership Adjustments	Landownership Adjustments	Landownership Adjustments	Landownership Adjustments
	Public land would not be transferred to Fallon County for a sanitary landfill (see map 5).	Ownership of 160 acres (T. 6 N., R. 60 E., sec. 14) would be transferred by sale to Fallon County for a sanitary landfill in accordance with standard operating procedures (see map 5).	Ownership of 640 acres (T. 6 N., R. 60 E., sec. 14) of public land would be transferred through exchange with Fallon County for a sanitary landfill in accordance with standard operating procedures (see map 5).	Ownership of 640 acres (T. 6 N., R. 60 E., sec. 14) of public land would be transferred through sale to Fallon County for a sanitary landfill in accordance with standard operating procedures (see map 5).
	No lands would be acquired into public ownership on the Cherry Creek drainage.	Public ownership of 640 acres (T. 13 N., R. 51 E., sec. 32) would be acquired for the Cherry Creek SRMA. Land would also be acquired or a conservation easement would be purchased in T. 12 N., R. 51 E., sec. 12 (203 acres).	Same as Alternative B.	Same as Alternative B (see map 16).
Recreation and Public Purposes Transfer	Public land within Makoshika State Park would not be disposed through the Recreation and Public Purposes Act to MDFW&P.	A cooperative agreement would be developed between MDFW&P and the BLM for managing Makoshika State Park SRMA.	A total of 3,924 acres of public land would be disposed through the Recreation and Public Purposes Act to MDFW&P for Makoshika State Park.	A total of 2,700 acres of public land would be disposed through the Recreation and Public Purposes Act to MDFW&P for Makoshika State Park (see map 17).

Systems and Communication Sites

Systems and Communication Sites

Rights-of-way construction for transportation/utility systems and communication sites would be authorized in accordance with standard operating procedures.

Rights-of-way construction for transportation/utility systems and communication sites would be excluded in the following areas. The remainder of the planning area would authorize rights-ofway in accordance with standard operating procedures.

Hell Creek ACEC

Bug Creek ACEC Sand Arroyo ACEC

Ash Creek Divide

Smoky Butte ACEC

Big Sheep Mountain

Powder River Depot

Powder River Depot

Cherry Creek SRMA

Makoshika State Park

Black-footed Ferret

Piping Plover ACEC

Crucial winter range from December 1 through

Calypso SRMA

Lewis and Clark Trail SRMA

Jordan Bison Kill ACEC

ACEC

Hoe ACEC

Seline ACEC

ACEC

ACEC

SRMA

SRMA

March 31

Overlap acres

ACEC

TOTAL

ACRES

19,169

3.840

9,056

7,931

80

144

360

160

1.386

171

69

2,858

14,000

3,924

636,265

1,151

(6,424)

694,236

16

80

Rights-of-way construction for transportation/utility systems and communication sites would be avoided in the following areas. If management determines that there is no feasible alternative route, restrictions would be developed to ensure that the rights-of-way are compatible with the objective for the appropriate resource. The accordance with standard

remainder of the planning area would authorize rights-of-way in operating procedures.

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	ACRES
Piping Plover ACEC	16
Black-footed Ferret	
ACEC	1,151
Hell Creek ACEC	19,169
Bug Creek ACEC	3,840
Sand Arroyo ACEC	9,056
Ash Creek Divide ACEC	7,931
Smoky Butte ACEC	80
Hoe ACEC	144
Big Sheep Mountain	
ACEC	360
Seline ACEC	80
Jordan Bison Kill ACEC	160
Powder River Depot	
ACEC	1,386
Powder River Depot	
SRMA	171
Makoshika State Park	3,924
Cherry Creek SRMA	2,858
Calypso SRMA	69
Lewis and Clark	
Trail SRMA	14,000
Overlap acres	(171)

Rights-of-way construction for transportation/utility systems and communication sites would be avoided or excluded as noted below for the following areas. The remainder of the planning area would authorize rights-ofway in accordance with standard operating procedures.

ACRES
144
360
80
160
1,386
171
2,700
2,858
69
14,000
11,166
16
80
(171)
33,019

	Alternative	A (No Action)	Alter	native B	Alte	ernative C	Alternati	ive D (Preferred)
Off-road Vehicle Designations	Off-road vehicle use would be designated on public lands as listed below.		Off-road vehicle use would be designated on public lands as listed below.		Off-road vehicle use would be designated on public lands as listed below.		Off-road vehicle use would be designated on public lands as listed below.	
Management Actions Affecting Livestock Grazing Accessibility and Availability	Open Limited Closed	ACRES 1,620,590 -00-	Open Limited Closed	ACRES 0 1,620,350 80	Open Limited Closed	ACRES 1,616,666 -00-	Open Limited Closed	ACRES 2,320 1,614,770 160
Exclusion	Livestock grazin be excluded in the		This would red fence. Cherry Creek S 2,858 acres, miles offence. Powder River 171 acres, 65 of fence. Calypso SRMA 69 acres, 11 fence. Lewis and Clar 14,000 acres 200 miles of Smoky Butte A 80 acres, 11 miles of fence. Piping Plover A 16 acres, 5 A fence. Crucial winter December 1 636,265 acres 75 miles of fence.	ock grazing use. quire 266 miles of SRMA 482 AUMs, 6 ee. Depot SRMA 5 AUMs, 3 miles A AUMs, 1 mile of rk Trail SRMA s, 2,900 AUMs, f fence. ACEC AUMs, 1 1/2 ce. ACEC AUMs, 1/2 mile of range from through March 31, es, 8,880 AUMs,	AUMs, would	ing use on the ACEC, 16 acres, 5 be excluded. This 1/2 mile of fence.	exclude lives This would refence. Cherry Creek 2,858 acres miles of fe Powder Rives 171 acres, of fence. Calypso SRM 69 acres, 1 fence. Piping Ploves through Ju	s, 482 AUMs, 6 nce. r Depot SRMA 65 AUMs, 3 miles

BLM-administered livestock grazing would be canceled as follows:

	AUMs	ACRES	AUMs	ACRES	A	UMs	ACRES	A	UMs	ACRES
Coal development	640 to 830	3,400 to 4,400	Fallon County sanitary landfill 36	160	Makoshika State Park Fallon County sanitary landfill	304	3,924 640	Fallon County sanitary landfill Makoshika State Park	145	640
					Coal	640	3,400	(MDFW&P)	150	2,700
					development	to	to	Coal	640	3,400
						830	4,400	development	to	to
					and acquired				830	4,400
					from the following	ng:				
					Fallon County	145	640			

Management Actions Affecting Coal Accessibility and Availability A total of 354,641 acres of public coal containing 6.97 billion tons with high or moderate development potential would be acceptable for further consideration through a lease or exchange pending application of the surface-owner consultation screen in accordance with the standard operating procedures (see "Coal" in Minerals appendix and maps 6A,B,C,D).

No coal development through a lease or an exchange would be acceptable for further consideration under this alternative. A total of 583,771 acres of public coal containing 6.22 billion tons with high or moderate development potential would be acceptable for further consideration through a lease or exchange pending application of the surface-owner consultation screen in accordance with the standard operating procedures (see "Coal" in Minerals appendix).

A total of 580,547 acres of public coal containing 6.18 billion tons with high or moderate development potential would be acceptable for further consideration through a lease or exchange pending application of the surface-owner consultation screen in accordance with the standard operating procedures (see "Coal" in Minerals appendix and maps 7A,B,C,D).

	Alternative A (No Action)	Alternative B		Alternative C		Alternative D (Pref	erred)
Management Actions Affecting Locatable Minerals Accessibility and Availability	There would be no new withdrawals from locatable mineral entry.	The following would be new withdrawals (discretionary closure) from locatable mine entry.		The following would be n withdrawals (discretionary closure) from locatable m entry.	y	The following would be withdrawals (discretiona closure) from locatable rentry.	ary
		MINERAL AC	CRES	MINERAL A	ACRES	MINERAL	ACRES
		Makoshika State Park SRMA 6 Powder River Depot SRMA Lewis and Clark Trail SRMA 24 Powder River Depot ACEC 1 Smoky Butte ACEC (subject to valid existing rights) Hell Creek ACEC 3 Sand Arroyo Divide ACEC 10 Ash Creek Divide ACEC 8 Piping Plover ACEC Black-footed Ferret ACEC 1	144 80 120 360 2,217 5,628 19 1,000 1,098 280 5,902 3,840 0,799 3,172 16 1,151 (19)	Piping Plover ACEC Black-Footed Ferret ACEC Smoky Butte ACEC (subject to valid existing rights) Makoshika State Park TOTAL	16 1,151 280 6,628 8,075	Hoe ACEC Seline ACEC Jordan Bison Kill ACEC Big Sheep Mountain ACEC Powder River Depot ACEC Smoky Butte ACEC (subject to valid existing rights) Powder River Depot SRMA Cherry Creek SRMA Makoshika State Park Hell Creek ACEC Bug Creek ACEC Sand Arroyo ACEC Ash Creek Divide ACEC Piping Plover ACEC Overlap acres TOTAL	360 1,098 19 2,217 6,628 25,902 3,840 10,799
		TOTAL 84	1,807				

Mineral material permits and sales would be allowed.

Mineral material permits and sales would not be allowed (discretionary closure) on the following areas.

Mineral material permits and sales would not be allowed (discretionary closure) on the following areas.

Piping Plover ACEC

Black-footed Ferret

Smoky Butte ACEC

Fallon County sanitary landfill

ACEC

TOTAL

Mineral material permits and sales would not be allowed (discretionary closure) on the following areas.

MINERAL ACRES

MINERAL ACRES

Hoe ACEC	144
Seline ACEC	80
Semme Frede	80
Big Sheep Mountain	
ACEC	360
Jordan Bison Kill ACEC	120
Powder River Depot	
ACEC	1,098
Smoky Butte ACEC	280
Powder River Depot	
SRMA	19
Cherry Creek SRMA	2,217
Lewis and Clark Trail	
SRMA	24,000
Hell Creek ACEC	25,902
Bug Creek ACEC	3,840
Sand Arroyo ACEC	10,799
Ash Creek Divide	
ACEC	8,172
Piping Plover ACEC	16
Black-footed Ferret	
ACEC	1,151
Fallon County	
sanitary landfill	160
Overlap acres	(19)

TOTAL

78,339

MINERAL ACRES

16

1,151

280

640

2,087

Hoe ACEC	144
Seline ACEC	80
Big Sheep Mountain	
ACEC	360
Jordan Bison Kill ACEC	120
Powder River Depot	
ACEC	1,098
Smoky Butte ACEC	280
Powder River Depot	
SRMA	19
Cherry Creek SRMA	2,217
Lewis and Clark Trail	
SRMA	24,000
Hell Creek ACEC	25,902
Bug Creek ACEC	3,840
Sand Arroyo ACEC	10,799
Ash Creek Divide ACEC	8,172
Black-footed Ferret	
ACEC	11,166
Piping Plover ACEC	16
Fallon County	
sanitary landfill	640
Overlap acres	(19)
TOTAL	88,834

	Alternative A (No Action)	Alternative B		Alternative	C	Alternative D (Pre	ferred)
Management Actions Affecting Nonenergy Leasable Minerals Accessibility and Availability	Leasing of nonenergy leasable minerals would be allowed.	Close leasing of nonenergy leasable minerals (discretionary closure) in the following areas:		Close leasing of nonenergy leasable minerals (discretionary closure) in the following areas:		Close leasing of nonene leasable minerals (discr closure) in the following	retionary
		MINERAI	L ACRES	MINERAL	ACRES	MINERAI	L ACRES
		Powder River Depot ACEC Hoe ACEC Seline ACEC Big Sheep Mountain ACEC Jordan Bison Kill ACEC Smoky Butte ACEC Hell Creek ACEC Bug Creek ACEC Ash Creek Divide ACEC Sand Arroyo ACEC Piping Plover ACEC Black-footed Ferret ACEC Powder River Depot SRMA Cherry Creek SRMA Makoshika State Park SRMA	1,098 144 80 360 C 120 280 25,902 3,840 8,172 10,799 16 1,151 19 2,217 6,628	Piping Plover ACEC Black-footed Ferret ACEC Makoshika State Park TOTAL	16 1,151 6,628 7,795	Powder River Depot ACEC Hoe ACEC Seline ACEC Big Sheep Mountain ACEC Jordan Bison Kill ACEC Smoky Butte ACEC Hell Creek ACEC Bug Creek ACEC Sand Arroyo ACEC Ash Creek Divide ACE Powder River Depot SRMA Cherry Creek SRMA Makoshika State Park Lewis and Clark Trail SRMA Piping Plover ACEC Black-footed Ferret ACEC	280 25,902 3,840 10,799
		Lewis and Clark Trail SRMA Overlap acres	24,000 (19)			Overlap acres TOTAL	(19)

TOTAL

84,807

Management Actions Affecting Oil and Gas Accessibility and Availability

Timing Restrictions

Oil and gas development and geophysical exploration would not be allowed on crucial winter ranges from December 1 through March 31. No areas in addition to management common would be stipulated with a timing restriction. Same as Alternative B.

Same as Alternative A.

MINERAL ACRES

Crucial winter ranges 700,979

Controlled Surface Use

Oil and gas leasing and development would be allowed with controlled surface use.

No areas in addition to management common would be stipulated controlled surface use. Same as Alternative B.

Oil and gas leasing and development would be allowed with controlled surface use.

MINERAL ACRES

Geophysical exploration would not be authorized: Black-footed ferret area 5.687

Geophysical exploration would be authorized:

Steep slopes 719,102

Total 724,789

MINERAL ACRES

5,164

Geophysical exploration would not be authorized: Black-footed Ferret

Black-footed Ferret
ACEC

Geophysical exploration would be authorized:

Steep slopes 719,102

Total 724,266

	Alternative A (No	Action)	Alternative B		Alternative	C	Alternative D (Pref	ferred)
No Surface Occupancy	Oil and gas leasing and development would be a with no surface occupant		Oil and gas leasing and development would be a with a no surface occupa stipulation and geophysi exploration would not be in the following areas.	ancy cal	Oil and gas leasing and development would be with a no surface occup stipulation, and geophy exploration would not be in the following areas.	authorized bancy sical	Oil and gas leasing and development would be a with a no surface occup stipulation.	
	MINERAL	ACRES	MINERAL	ACRES	MINERAL	L ACRES	MINERAL	ACRES
	Geophysical exploration not be authorized: Powder River Depot recreation site Seline site Piping plover site Geophysical exploration would be authorized: Riparian/wetlands TOTAL	19 80 16	Fallon County sanitary landfill Piping Plover ACEC TOTAL	160 16 176	Cherry Creek SRMA Powder River Depot SRMA Seline ACEC TOTAL	2,217 19 80 2,316	Geophysical exploration not be authorized: Powder River Depot SRMA Cherry Creek SRMA Powder River Depot ACEC Hoe ACEC Big Sheep Mountain ACEC Seline ACEC Hell Creek ACEC Bug Creek ACEC Sand Arroyo ACEC Ash Creek Divide ACE Fallon County sanitary landfill Jordan Bison Kill ACEC Piping Plover ACEC Geophysical exploration would be authorized: Riparian/wetlands Lewis and Clark Trail SRMA	19 2,217 1,098 144 360 80 25,902 3,840 10,799 C 8,172 640 C 120 16
							Smoky Butte ACEC Overlap acres TOTAL	280 (5,369) 77,668

No areas in addition to management common would be closed to oil and gas leasing or geophysical exploration. The following areas would be new closures (discretionary) to oil and gas leasing and geophysical exploration.

Same as Alternative A

Same as Alternative A

MINERAL ACRES

144
360
80
120
1,098
19
2,217
25,902
3,840
10,799
8,172
700,979
719,102
5,350
24,000
280

habitat for the black-footed ferret

Overlap acres

TOTAL

62,035

(297,942)

1,266,555

	Alternative A (No Action) Alternative B		Alternative C	Alternative D (Preferred)	
Lease Terms	The following areas would be open to oil and gas leasing subject to lease terms and standard lease stipulations.	None of these areas would be open to oil and gas leasing subject to lease terms.	The following areas would be open to oil and gas leasing subject to lease terms.	The following areas would be open to oil and gas leasing subject to lease terms.	
	MINERAL ACRES		MINERAL ACRES	MINERAL ACRES	
	Cherry Creek recreation area 2,217 Powder River Depot cultural site (excluding recreation portion within site area) 1,079 Lewis and Clark Trail 24,000 Hoe cultural site 144 Big Sheep Mountain cultural site 360 Jordan Bison Kill cultural site 120 Potential prairie dog habitat for the black-footed ferret 118,403 Smoky Butte Area 280 Hell Creek paleontology area 25,902 Bug Creek paleontology area 3,840 Sand Arroyo paleontology area 10,799 Ash Creek Divide		Powder River Depot ACEC (excluding SRMA portion) 1,079 Hoe ACEC 144 Big Sheep Mountain ACEC 360 Jordan Bison Kill ACEC 120 Piping Plover ACEC 16 Black-footed Ferret ACEC, potential black-footed ferret habitat and potential prairie dog habitat for the black-footed ferret 62,035 Crucial winter range 700,979 Steep slopes 719,102 Riparian/wetlands 5,350 Lewis and Clark Trail SRMA 24,000 Smoky Butte ACEC 280 Hell Creek ACEC 25,902 Bug Creek ACEC 3,840 Sand Arroyo ACEC 10,799 Ash Creek Divide ACEC 8,172	Potential prairie dog habitat for the black-footed ferret 56,839 TOTAL 56,839	
	paleontology area 8,172	_	Fallon County sanitary landfill 640		
	TOTAL 195,316	i	Overlap acres (297,942)		
			TOTAL 1,264,876		

lation.

TABLE 10 COMPARISON SUMMARY OF IMPACTS

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred)
AIR QUALITY	Impacts to air quality would be short term and localized under this alternative. Surface disturbance from construction activities and fire suppression would cause temporary short-term increases of dust particulates. Gas line breakages, and flaring from oil and gas production would cause temporary short-term air pollution from odor and fumes.	The impacts would be the same as Alternative A, except there would be no impacts to air quality under Alternative B from coal mining or development.	Same as Alternative A.	Same as Alternative A.
CULTURAL RESOURCES	Impacts to cultural resources would be minimal as cultural class III surveys would identify the majority of significant sites. Surface-disturbing activities and land tenure adjustment could encounter 910 cultural sites. Approximately 90 to 129 of these sites could be eligible for the National Register of Historic Places.	The impacts to cultural resources would be similar to those in Alternative A except under this alternative there would be no impacts on the 2,130 acres of cultural ACECs, or from coal development and there could be 3 to 4 eligible sites affected by construction of the Cherry Creek Dam. Potential impacts from offroad vehicle use would be less than Alternative A as 1,620,350 acres would be limited. A total of 1,422 to 1,424 cultural sites could be encountered under this alternative with a potential of 141 to 201 of these sites eligible for the National Register of Historic Places.	Impacts on cultural resources would be the same as Alternative A, except under this alternative there would be a potential for impacts in the construction of the Cherry Creek Dam and SRMA. A total of 2,057 to 2,059 cultural sites could be encountered under this alternative with a potential of 204 to 291 of these sites eligible for the National Register of Historic Places.	Same as Alternative B, except a total of 2,092 cultural sites could be encountered in this alternative with a potential of 208 to 296 of these sites eligible for the National Register of Historic Places. Open off-road vehicle use on 2,320 acres could encounter 23 sites with a potential of 2 to 3 of these sites being eligible for the National Register of Historic Places.
FIRE MANAGEMENT	Intensive and conditional fire suppression designations would increase efficiency of extinguishing fires with minimal suppression costs and losses. Prescribed fire would reduce fire hazard by reducing fuel accumu-	Same as Alternative A, except under this alternative the excluding of livestock grazing and concentrating people in the SRMAs could create a potential for wildfires in these areas.	Same as Alternative A.	Same as Alternative A, except under this alternative the excluding of livestock grazing and concentrating people in the Calypso, Cherry Creek and Powder River SRMAs could create a potential for wildfires in these areas.

TABLE 10 (continued) COMPARISON SUMMARY OF IMPACTS

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred)
FORESTRY	Management actions under this alternative would not adversely affect the forestry resources. Limber pine would be protected.	Same as Alternative A.	Same as Alternative A.	Same as Alternative A.
LANDS	Public landownership pattern would be adjusted due to exchanges or acquisitions.	Public land acreage would decrease by 160 acres because of the public sale to Fallon County. Exchanges and acquisitions would cause an adjustment in the public land ownership pattern.	The recreation and public purposes sale of 3,924 acres to MDFW&P would decrease the public land acreage.	Public land acreage would decrease 640 acres because of the public sale to Fallon County, and the recreation and public purposes disposal of 3,924 acres to MDFW&P.
	There would be no impacts to rights-of-way development in Alternative A.	Rights-of-way development would be excluded on 693,594 acres, a significant impact, requiring rerouting.	Rights-of-way development would be avoided on 63,073 acres. This would be less of an impact than exclusion, as the rights-of-way could be constructed if no feasible alternative route existed. There would be increased costs to operators on those areas where rights-of-way were avoided.	Rights-of-way development would be avoided on 32,939 acres. This would be less of an impact than exclusion, as the rights-of-way could be constructed if no feasible alternative route existed. There would be increased costs to operators on those areas where rights-of-way were avoided. The 80 acres excluded from rights-of-way development would not be a significant impact.
LIVESTOCK GRAZING MANAGEMENT	Riparian/wetland vegetation and forage would improve. Visual resource management I designation on 83,240 acres would limit the opportunities to develop water or fences.	Impacts would be the same as Alternative A, except under this alternative 11,815 animal unit months would be affected. This would increase costs and cause management changes for 102 grazing permittees in the planning area.	Same as Alternative A, except under this alternative 309 animal unit months would be affected (five grazing permittees).	Same as Alternative C, except under this alternative 858 animal unit months of livestock forage would be affected (10 grazing permittees).

C	7	١
C	J	ì

MINERALS Coal	A total of 354,641 acres of federal coal with an estimated 6.97 billion tons of coal would be available for further consideration.	Federal coal (847,379 acres) with an estimated 9.16 billion tons of high and moderate coal would be unavailable for coal development. This would result in lost revenues to the public.	The application of 20 unsuitability criteria has removed 263,608 acres with 2.94 billion tons of coal from further consideration (see the "Coal" section in the Minerals appendix). A total of 583,771 acres of federal coal with an estimated 6.23 billion tons of coal would be available for further consideration.	The application of 20 unsuitability criteria has removed 266,805 acres with 2.99 billion tons of coal from further consideration (see the "Coal" section in the Minerals appendix). A total of 580,547 acres of federal coal with an estimated 6.18 billion tons of coal would be available for further consideration.
Locatable Minerals	There would be no impacts to locatable mineral development in Alternative A.	A total of 84,807 acres would not be available for mineral entry.	A total of 8,075 acres would not be available for mineral entry.	A total of 59,656 acres would not be available for mineral entry.
Mineral Materials	During coal development, scoria would be buried or moved, eliminating the scoria from future use.	Mineral materials (78,339 acres) would be closed to extraction. This would result in a potential loss of income from mineral material sales. This would be a minimal impact as mineral materials are readily available in most of the planning area. During coal development scoria would be buried eliminating the scoria from future use.	Mineral materials (2,087 acres) would be closed to extraction. This would result in a potential loss of income from mineral material sales. This would be a minimal impact as mineral materials are readily available in most of the planning area.	Same as Alternative C, except under this alternative 88,834 acres would be closed to mineral material extraction.
Nonenergy Leasable Minerals	There would be no impacts to nonenergy leasable mineral development in Alternative A.	A total of 84,807 acres would be closed to nonenergy leasable mineral leasing. The likelihood of development would be minimal. There would be no impacts.	A total of 7,795 acres would be closed to nonenergy leasable mineral leasing. The likelihood of development would be minimal. There would be no impacts.	A total of 94,822 acres would be closed to nonenergy leasable mineral leasing. The likelihood of development would be minimal. There would be no impacts.
Oil and Gas	Three oil and gas wells would not be drilled in the next 20 years.	A total of 174 oil and gas wells would not be drilled in the next 20 years.	Same as Alternative A.	Same as Alternative A.
PALEONTOLOGY	Surface disturbance would have minimal impact on paleontological resources.	Same as Alternative A, except under this alternative paleonto- logical resources would be protected and enhanced on 39,996 acres of paleontological ACECs.	Same as Alternative B.	Same as Alternative B.

CHAPTER 2 Alternatives

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred)
RECREATION	Land exchanges and access acquisitions would improve recreational opportunities. Opportunities to improve recreation would be lost by not developing SRMAs. Visual resources would be minimally impacted by surface-disturbing activities and open off-road vehicle use on 1,620,590 acres. Off-road vehicle enthusiasts would benefit from the open off-road vehicle use designation.	Land exchanges and access acquisitions would improve recreational opportunities. The developed SRMAs would significantly enhance recreation use and management and satisfy some of the local, regional and national demand for additional facilities. Hunters would benefit from excluding leasing of oil and gas development and livestock grazing in the crucial winter range. The sanitary landfill would distract recreational use on adjacent lands. A limited off-road vehicle use designation on 1,620,350 acres and closure on 80 acres would enhance visual resources by the elimination of new trails, but would restrict off-road vehicle enthusiasts.	Land exchanges and access acquisitions would improve recreational opportunities. The developed SRMAs would significantly enhance recreation use and management. The sanitary landfill would distract recreational use on adjacent lands. Visual resources would be minimally impacted by coal development and open off-road vehicle use on 1,616,666 acres. Off-road vehicle enthusiasts would benefit from the open off-road vehicle use designation.	Land exchanges and access acquisitions would improve recreational opportunities. The SRMAs would ensure high quality, intensive recreational use. The sanitary landfill would distract recreational use on adjacent lands. Visual resources would be minimally impacted by coal development and open offroad vehicle use on 2,320 acres. Off-road vehicle enthusiasts would benefit from the open offroad vehicle use designation. The 1,614,770 acres limited to offroad vehicle use would restrict off-road vehicle enthusiasts.
SOCIOECONOMICS				
Economics	Economic impacts would result in little change from the existing situation and would not significantly affect the economy in the future.	Impacts on economic activity would be less than 1 percent. Employment opportunities would decrease by a total of approximately 90 jobs. Jobs related to the livestock industry would decrease by 17, jobs related to the oil and gas industry would decrease by 136 and jobs related to recreation would increase by	Impacts on economic activity would be less than 1 percent. Employment opportunities would increase by a total of approximately 32 jobs. Jobs related to the livestock industry would decrease by 1 and jobs related to recreation would increase by 33. Jobs in the oil and gas industry would not change.	Impacts on economic activity would be less than 1 percent. Employment opportunities would increase by a total of approximately 33 jobs. Jobs related to the livestock industry would decrease by 1 and jobs related to recreation would increase by 34. Jobs in the oil and gas industry would not change.

63. The jobs lost would have a higher income than the jobs

Decreased oil and gas development and exploration would decrease local economic activity.

created.

Sociology

	livestock grazing and oil and gas decreases).		
Impacts to social well-being would be:	Impacts to social well-being include:	Impacts to social well-being include:	Impacts to social well-being include:
Livestock grazing would not be affected, which would enhance the social well-being of the	Developed recreation opportunities.	Developed recreation opportunities.	Developed recreation opportunities.
operators and people involved with agricultural production.	Enhanced resource protection.	Enhanced resource protection.	Enhanced resource protection.
Opportunities for off-road vehicle enthusiasts would not be limited.	Increased employment related to recreation.	Increased employment related to recreation.	Increased employment related to recreation.
Decline in the condition of wildlife habitat would diminish the social well-being of people interested in resource protection.	A short-term increase in employment in construction of and for local business due to the Cherry Creek SRMA.	A short-term increase in employment in construction of and for local business due to the Cherry Creek SRMA.	A short-term increase in employment in construction of and for local business due to the Cherry Creek SRMA.
People concerned about new recreational opportunities,	Reduced opportunities for off- road vehicle enthusiasts	Decline in the condition of wildlife habitat would impact the social well-being of people	Reduced opportunities for off- road vehicle enthusiasts.
limiting off-road vehicle use, protection of wildlife, and enhancing local economic development would be disappointed.	Reduction of livestock animal unit months for 102 operators which could reduce the standard of living of the operators and people involved with agricultural production.	interested in resource protection. Reduction of animal unit months for 5 livestock operators would reduce their standard of living and social well- being.	Reduction of animal unit months for 10 operators would reduce their standard of living and social well-being.
		People concerned about new recreational development, limiting off-road vehicle use, and protection of wildlife, would be	

disappointed.

A long-term net decrease in local business activity (recreation increases would not offset the

TABLE 10 (concluded) COMPARISON SUMMARY OF IMPACTS

	Alternative A (No Action)	Alternative B	Alternative C	Alternative D (Preferred)
SOIL AND WATER	Impacts to soil and water would vary. Surface-disturbing activities would cause minimal impacts to soil and water resources by increased soil erosion and sedimentation. Riparian/wetland management and livestock grazing systems would enhance the watershed, decreasing soil erosion, and enhancing water quality. Off-road vehicle use causes soil erosion which may impact water quality.	Impacts to soil and water would be the same as Alternative A, except under this alternative there would be no impacts from coal mining, or off-road vehicle use, and there would be conflicts with upstream water users in Cherry Creek.	Impacts to soil and water would be the same as Alternative A.	Impacts to soil and water would be the same as Alternative A, except under this alternative, impacts from off-road vehicle use would be lessened from a limited designation on 1,614,770 acres.
VEGETATION	Vegetation would improve over the next 20 years. Surface disturbance would cause short- term adverse impacts, but vegetation would increase in the long term. Coal mining would be the most significant impact voiding 340 acres of vegetation at any given time. Riparian/wetland management and implementation of grazing systems would enhance vegetation.	Impacts to vegetation would be the same as Alternative A, except under this alternative there would be no impacts from coal mining, off-road vehicle impacts would be reduced, and prairie dogs would continue to remove 40 to 90 percent of the vegetation in prairie dog colonies.	Impacts from the Black-footed Ferret Area of Critical Environmental Concern would be the same as Alternative B. The remaining impacts to vegetation would be the same as Alternative A.	Impacts to vegetation would be the same as Alternative A, except under this alternative off-road vehicle impacts would be reduced, and prairie dogs would continue to remove 40 to 90 percent of the vegetation in prairie dog colonies.

WILDLIFE

Wildlife habitat would decline in some areas and improve in others. In areas not under intensive livestock management practices, early spring grazing and overutilization of wildlife forage would adversely affect habitat and wildlife. Allotment management plan implementation, riparian/wetland management, and managing browse utilization would increase cover and wildlife forage. Managing surface disturbance in and around nesting areas and crucial winter ranges during the winter would enhance survival of the species dependent upon those habitats. Black-footed ferret reintroduction would not be allowed, impacting the continuation of this species.

Impacts to wildlife would be positive in this alternative. Big game would not be harassed from oil and gas activities in crucial winter range. Positive benefits to wildlife would occur in riparian/wetland areas and nesting habitat. Designation and management of the Black-footed Ferret and Piping Plover ACECs would enhance the survival and existence of these threatened and endangered species.

The impacts would be the same as Alternative A, except under this alternative the Piping Plover and Black-footed Ferret ACECs would be enhanced.

The impacts would be the same as Alternative B, except under this alternative the Black-footed Ferret ACEC would be enlarged, resulting in a greater potential for reintroduction of the black-footed ferret, as well as a positive benefit to prairie dogs and associated species.